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MAY- AUGUST 2021

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DEPARTMENT OF GRADUATE BUSINESS STUDIES

REGULAR/ODEL PROGRAMME

CEN 619: CASES IN ENTREPRENEURSHIP

Date: AUGUST 2021	Duration: 3 Hours
INSTRUCTIONS: Answer ANY FOUR Questions	

Read the cases provided and answer the questions that follow.

CASE I: DLight : How Bringing Its Business Plan to Life Helped a Social Enterprise Get Off to a Strong Start

Introduction

Imagine the following. You're in the audience of a business plan competition. The next team up to present is DLight, a for-profit social enterprise that plans to bring light to people without access to reliable electricity. Two young men introduce themselves as the founders of DLight, and say they're going to start their presentation with a demonstration. The lights go out. In a few seconds, you see a dim light at the front of the room, and smell smoke and burning kerosene. After about 30 seconds, your eyes start to water and it becomes slightly uncomfortable to breathe. The lights switch back on and the smoke clears. The young men apologize for the lack of light and smoke, but say the demonstration was staged to illustrate a point. Around 1.5 billion people, or

more than one fifth of the world's population, have no access to electricity, and about a billion more have an unreliable or intermittent supply. A large share of these people use kerosene to light their homes at night. Kerosene fumes are extremely unhealthy, even fatal. In fact, the United Nations estimates that kerosene fumes kill 1.5 million people per year, and cause countless health complications for others.

Sam Goldman and the Origins of DLight

The scene described here actually took place several times. It's the way Sam Goldman and Ned Tozen, the cofounders of DLight, introduced the company at business plan competitions and when they pitched investors. DLight is an international consumer products company serving "base of the pyramid" consumers who don't have access to reliable electricity. Although DLight technically started in a class at Stanford University, its beginning can be traced to Sam Goldman's youth and early adulthood. Growing up, Goldman's parents worked for the United States Agency for International Development (USAID), a government agency that provides economic and humanitarian assistance in countries across the globe. Goldman lived in Pakistan, Peru, India, Canada, and several other countries.

As a young adult, while working for the Peace Corps, he lived for four years in a West African village that had no electricity. A neighbor boy was badly burned in a kerosene fire, an event that deeply impacted Goldman. At one point during his time in the village, Goldman was given a battery-powered LED headlamp, and was struck by the dramatic difference that simply having light at night can make in a person's life. He could now cook, read, and do things at night that were unimaginable without the benefits reliable lighting provides. Impacted by this experience, Goldman sought out a graduate program that would provide him the opportunity to start thinking about creating a business to take light to people without access to reliable electricity. He landed at Stanford, which was starting a program in social enterprise. A pivotal class was Jim Patelli's 2006–2007 Entrepreneurial Design course.

The class was divided into teams, and each team was challenged to address a significant issue in the developing world. Goldman was teamed up with Ned Tozen, a

business classmate, and two engineering students, Erica Estrade and Xian Wu. The team tackled the problem of light for people without access to reliable electricity, and developed a rough prototype of a portable LED light that could be recharged via solar power. That spring, the team travelled to Burma for the purpose of going into villages that didn't have access to electricity to introduce their device. Villagers told them they spent up to 40 percent of their income on kerosene. When shown how their crude prototype could provide light at night and be recharged during the day simply by deploying small solar panels on their homes, the villagers were so taken that one woman actually wept. According to one account of the team's trip, in one village the local police confiscated the prototypes. They, too, needed light at night.

Design and Distribution

After completing the Entrepreneurial Design course, the teammates headed their separate directions for the summer. In the fall, they reunited, and determined to continue to work on their business concept. The concept of using solar power to recharge portable lights in poor rural areas wasn't new. In fact, it had been tried many times. The problem, in Goldman and his team's estimation, was a combination of design and distribution. Previous models relied either on NGOs and governments "giving" fairly expensive lights to people without access to electricity, which they couldn't afford to replace when used up or if broken, or commercial enterprises buying extremely inexpensive lights in China and exporting them to Africa and elsewhere, where they performed poorly. It was clear to Goldman that neither of these models was sustainable. So, Goldman and his team, driven by the possibility of changing literally millions of people's lives throughout the world, recruited talented engineers and distribution experts, who worked on a near pro bono basis, to help with the project. The goal was to produce a solar-powered portable LED light that was exactly what rural villagers needed-nothing more and nothing less. It also had to be cheap enough that villagers could afford it yet produce sufficient margins for DLight to be profitable. The decision was made early on that DLight would be a for-profit company. The company's goal was not to impact 100,000 people or a million people but to impact hundreds of millions of people. Goldman and his team knew that their lofty ambitions would take cash and

additional R&D efforts, which would require private-sector investment capital. During this period, which covered the summer of 2007 until early 2008, Goldman and his cofounders continued traveling to remote areas for the purpose of obtaining feedback about their prototype. During Christmas break, instead of traveling home to see his family, Goldman was in the middle of Miyamairi doing research. The team thinned some in early 2008, with Goldman, Tozan, and Wu continuing. DLight was now up-and-running and opened its first international offices in India, Shenzhen, China, and Tanzania.

Business Plan Competitions and Investor Presentations:

One thing Goldman stresses during talks about DLight is the instrumental role that the company's business plan played in helping the company take shape and in raising investment capital. Early on, DLight entered several business plan competitions. In the spring of 2007, it took second place in the University of California, Berkeley's Social Venture Competition and won first prize at Stanford's Social E-Challenge. A big breakthrough happened in May 2007 when the team claimed the \$250,000 first prize in the prestigious Draper Fisher Jurvetson Venture Challenge competition. This money provided seed funding for much of the work that was completed during the summer and fall of 2007.

What's particularly interesting is Goldman's reflections on why his company was so successful in business plan competitions and eventually investor presentations—reflections that are instructive for all young businesses. Collectively, these attributes presented DLight as an organization with a compelling idea, a strong team, large markets, a product focus and a coherent, resolute, and extremely admirable vision for the future.

DLight Today

Today, DLight is fully up-and-running. Its numbers have since increase and the product is projected to achieve strong growth in the future. Its first product was the Nova, which was a solar powered portable LED light that sold for a U.S. equivalent of about \$25. It's

most popular device is now the Kiran, which at U.S. equivalent \$10 has been touted as the world's most affordable portable solar light. It has a life of 50,000 hours, and if used to replace kerosene, can pay for itself in just four months. In one study in rural India, having a Kiran LED light in the home increased the study time for school-aged children two to three hours per day. DLight continues to strength its distribution strategy. One strategy that has worked well is to employ "rural entrepreneurs" to sell the product. DLight likes to employ indigenous personnel, who know the local customs, people, and language, to sell its product on a commission basis. In India, DLight has established partnerships with NGOs and microfinance organizations. It has also scored \$6 million in investment capital from U.S. and Indian investors.

Challenges Ahead

As it continues to grow, DLight faces a host of challenges. The primary challenge, as it continues to enter new areas, is to convince hesitant customers with little extra income to invest in unfamiliar technology. Although kerosene has many harmful side effects, it is an integral part of many villagers' lives. Another challenge is managing the tension between growth and profitability. DLight can actually accelerate profitability by slowing growth. Yet slowing growth is counter to its overall mission of reaching as many people as possible. Finally, while DLight's most basic lantern costs \$10, the price will have to fall below \$5 to make it universally affordable, according to a study by the International Finance Corporation, an arm of the World Bank. DLight has not yet reached this milestone.

Six Key Reasons DLight Was Successful in Business Plan Competitions

Told Stories and Showed Pictures: While many teams enter business plan competitions with impressive PowerPoint slides and bullet points, DLight focused on telling stories and showing pictures. They showed photographs of rural villagers using their device, and shared their testimonials. In one interview, Goldman remarked that he was confident that no matter how many plans or pitches a group of judges or investors heard during a day, he was confident they remembered DLight's presentation.

All In: The founders were fully committed to DLight. They passed on corporate jobs and focused on DLight full time. Along with talking the talk, they also walked the walk. Instead of saying that they planned to travel to remote villages to test their device, they just went out and did it. Some of the trips came before the business plan presentations.

Right Team: DLight put together a strong team, with a balance of business and engineering expertise. The team was well-suited for launching a global initiative. Goldman had lived overseas the majority of his life, in places like India and Pakistan. Other team members had demonstrated that they had no inhibitions about traveling to remote villages to talk about their device.

Big Market: DLight was tackling a large market, which investors like. To make their financials work, the team would have to scale the business and sell millions of units. While the challenge was great, so was the potential payoff.

Product Focus: The company iterated its device multiple times before settling on its first solar-powered portable LED light, called the Nova. The Nova sold for a U.S. equivalent of around \$25. Early feedback indicated that the price was still too high, so more iterations took place.

Strong Vision: Although DLight was a social enterprise, it unashamedly presented itself as a for-profit venture. The team was resolute that getting to scale could only be accomplished via private sector capital. DLight also measured its success by the number of families it positively impacted. This sense of purpose and vision permeated the organization

Required:

- a) Apply the Timmons model of entrepreneurship process to analyses the case **(4 marks)**
- b) What made DLight to be successful in business plan competitions **(5 Marks)**
- c) If you were the founders of DLight, what entrepreneurial marketing strategy would adopt to reach the consumers of your innovation including those located at rural areas **(5 Marks)**

- d) Analyze the entrepreneurial characteristics of Sam Goldman (Social entrepreneur) and his team that will help them solve the problem of providing light to the 2.5 billion people in the world. **(5 marks)**
- e) Why do you think Sam Goldman goes out of his way to talk about the importance of DLight's business plan? In what ways do you think having a meticulously crafted business plan helped DLight? **(6 Marks)**
- f) Evaluate Sam Goldman's business idea based on the qualities of a viable a viable business opportunity **(5 marks)**
- g) Using an example from the case, discuss the environmental variable that may have played a role in Sam's ability towards identification of the opportunity **(5 Marks)**

CASE 2

College: The Ideal place to launch a Business

For growing numbers of students, college is not just a time of learning, partying, and growing into young adulthood; it is fast becoming a place for building a business. More than 2,300 colleges and universities offer courses in entrepreneurship and small business management (an increase from just 200 schools in the 1970s) to more than 400,000 students, and many of them have trouble keeping up with demand for these classes. "Students used to come to college and assume that five to ten years down the road, they'd start a business," says Gerry Hills, cofounder of the Collegiate Entrepreneurs Organization. "[Today], they come in preparing to get ideas and launch."

Many collegiate entrepreneurs realize that if they are going to have a job when they graduate, it is likely to be one they have created for themselves. According to a recent survey by Accenture, only 16 percent of college graduates who applied for a job had one waiting for them after graduation. For a growing number of college students, landing a job in corporate America, starting on the bottom rung of an uncertain career ladder, has lost much of its allure. While studying at Harvard (where she majored in the

history of science), Windsor Hanger worked in internships at OK! Magazine and at Bloomingdale's, which offered her a marketing position when she graduated. Hanger turned down the job offer, choosing instead to focus on the business, HerCampus, an online magazine aimed at college women, that she had started with classmates Stephanie Kaplan and Annie Wang. "It's not a pure dichotomy anymore that entrepreneurship is risky and other jobs are safe, so why not do what I love?" she says. For their work at HerCampus, which is now profitable, Hanger, Kaplan, and Wang recently were named to Inc. magazine's "30 Under 30 Coolest Young Entrepreneurs" list.

Perhaps because of their stage in life, college entrepreneurs are particularly keen at spotting business opportunities. When Derek Pacqué was a senior at Indiana University, he was at a nightclub one cold evening and tucked his coat away in a corner for safekeeping. When he went to get his coat later, however, it was gone. Pacqué never found his coat, but he did find the inspiration for a business when he realized that none of the bars in town had a coat check. Pacqué approached several bar owners around town to see whether they were interested in a coat check service. Many were, and Pacqué launched Hoosier Coat Check, investing \$500 to build portable coat racks and hiring several college students to staff them. Hoosier Coat Check collected between 10 percent and 30 percent of the \$2 to \$3 check fee the bars charged and in just six months generated \$50,000 in revenue. The business was more profitable than Pacqué had expected, but numerous unanticipated problems cropped up as well, including lost tickets and matching customers with the wrong coats.

After graduating, Pacqué worked with a former professor to reformulate his business model to eliminate paper tickets and incorporate digital technology. Now, an app uses photographs and QR codes to check customers' coats, increasing both the speed and the reliability of the service. He also changed the name of the company to CoatChex and began to focus on events at large venues rather than local bars. He landed contracts to provide coat check services for the ESPN and Maxim Super Bowl parties in

Indianapolis, and the company grew from there. Pacqué also discovered an unexpected angle on his company's digital coat check service. His customers wanted access to the information that CoatChex collected on its customers through its app so that they could connect with customers through social media such as Facebook, Twitter, and Instagram.

Pacqué is searching for \$1 million from private investors to fuel CoatChex's growth so that the company can live up to its potential. He appeared on television's Shark Tank, offering 10 percent of the company in exchange for a \$200,000 investment. Indiana University alumnus Mark Cuban offered Pacqué \$200,000 for one-third of CoatChex, but Pacqué refused, not wanting to give up that much equity so early in the life of his business. Although Pacqué did not get the investment deal he had hoped for from Shark Tank, the brand exposure that CoatChex received from appearing on the show has proved to be as valuable as an infomercial that would cost \$500,000.

While working on a master's degree in computer science and electrical engineering, Limor Fried enjoyed applying the skills she was learning in the classroom, building MP3 players and laser toys from custom-ordered parts. Fried posted the instructions on her Web site and soon was flooded with requests from people asking for pre-assembled kits so that they could build their own devices. "At first, I was like, 'I'm really busy. Leave me alone,'" she recalls. Then she realized the entrepreneurial potential that selling kits had and convinced her parents to allow her to use \$10,000 of the money they had set aside for tuition to purchase parts in bulk, assemble the kits, and sell them. As word spread, the number of orders grew, and Fried began hiring some of her friends to help fill them. Soon, she was designing a new project every week for her customers, who ranged from elementary school kids and tech geeks to hobbyists and retirees.

Today, Fried owns Adafruit Industries, a New York City-based company that generates more than \$10 million in annual sales by selling pre-assembled kits of parts for building cool objects such as MintyBoost, a portable USB mobile device charger made from an

Altoids tin and various electronic components (50,000 kits sold so far). Other popular kits include the iNecklace, which allows customers to build a pendant shaped like the “on” button on Apple gadgets (complete with pulsating light), and the MaKey MaKey, a device that uses circuitry and alligators clips to turn anything that conducts electricity (bananas, plants, your dog . . .) into a keyboard or touchpad. AdaFruit Industries’ 50 employees are constantly developing new kits and shipping them worldwide.

Budding entrepreneurs at a growing number of colleges can take advantage of a special programs designed to create a culture for entrepreneurship. A growing number of schools provide on campus business accelerators that offer promising student entrepreneurs amenities such as low-cost (sometimes free) office space, start-up funding, professionally appointed conference rooms, wireless Internet access, smartboards, ample computer facilities, videoconferencing equipment, copiers, and others. Presentations from entrepreneurs, venture capitalists, bankers, attorneys, and others help students define their business ideas and develop their business plans. “It’s often over those late-night pizzas where the best ideas are born,” says one official. One student entrepreneur in the program agrees: “A lot of it is the community. Being around people in the [entrepreneurship] program inspires one to think about other opportunities out there. What I’ve learned here is how to plan, how to make a business actually work.”

Required:

- a) In addition to the normal obstacles of starting a business, what other barriers do collegiate entrepreneurs face? **(8 Marks)**
- b) What advantages do collegiate entrepreneurs have when launching a business? **(6 Marks)**
- c) What advice would you offer a fellow college student about how to start a business? **(6 Marks)**
- d) Basing on the case, are entrepreneurs born or made? **(5 Marks)**