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EnviroPump: Venture Capital Financing Options for a Cash-Strapped Entrepreneur

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Abstract

This case examines the financing options that Tia Lutz has available to keep her company afloat. Lutz conceived of and designed an auxiliary solar-powered pool pump that was cost-efficient and had great market potential. With a successful initial prototype and encouraging feedback from pool stores, Lutz decided to quit her job and formally incorporate EnviroPump. Wanting to preserve full control, she decided not to take on partners, instead financing the business with the USD 200,000 she had in personal savings. Close to a year later, however, Lutz has almost depleted her cash reserves and has still not arrived at a final prototype. With only two weeks before her savings run dry, Lutz must make a decision as to which of three imperfect venture capital offers she should accept.

Case

Learning Outcomes

By the end of this case study, students will be able to:

- understand the risks associated with bootstrapping an investment and running out of capital;

- appreciate the challenges of attracting and vetting venture capital (VC) investors;
- realize that in entrepreneurship there is often no perfect financing solution; and
- analyze various investment scenarios.

Introduction

Tia Lutz sat at her desk staring at her unfinished prototype. On her table were scattered papers—among them three term sheets detailing various conditions laid out by prospective investors. By morning, one of them would have to be signed. She needed the funds badly and soon. She had two to three weeks before her savings dried up, and her company was in danger of insolvency. She rubbed her eyes and picked up the papers again, reviewing one more time the advantages and disadvantages of each one.

History

Lutz conceived the idea for EnviroPump when she was working in the waste treatment industry. She had been an engineer working on a large-scale water treatment plant that was incorporating auxiliary solar pumps to help with the plant's efficiency. After thinking about the design, she thought back on the pool at her house and how the same concept could be used there. She thought that she might be able to design an auxiliary solar-powered pump to aid in the filtering of her home pool.

She then started sketching out prototypes for the solar pool pump and finally got one that she liked. With the help of a couple of tech-savvy friends, she was able to build a working prototype. The prototype was a floating pump and filter. The pump only required two 150-watt solar panels that were in total three feet by four feet in size. It used solar power to pump the water through the attached silicon filters that were on the bottom of the device. She then tested the device in her pool, and it worked even better than she thought it would. Originally, she hoped that the auxiliary pump might reduce the need to run the regular electric pump by 50%, but instead it almost eliminated the need to run the electric pump. The only time she needed to run the regular pump was for vacuuming the pool.

Encouraged by the performance of her invention, she then took the solar pump to several pool stores to get

their input. Every one of them was astonished by it and could not believe that it would almost completely eliminate the need to run the regular pump. If true, this would save the owner of an average-size pool over USD 700 in electricity costs per year, not to mention the environmental benefits. There were solar-powered pumps on the market, but these required huge panels and cost over USD 8,500. Lutz's pump was small and only required two small 150-watt solar panels. Furthermore, Lutz could market the pump for a retail price of around USD 800, which the stores were enthused about. To put it mildly, Lutz felt that these visits had completely validated her idea.

The positive feedback prompted Lutz to formally incorporate EnviroPump in December of 2014. After formally starting the company, she worked on the new venture in her spare time, but in June of 2015 she decided that she needed to quit her full-time engineering job to focus on her startup. By that point, Lutz felt that she had enough in savings to do just that. But did she have enough to finance the startup as well? Deeply uncomfortable with taking on debt and the risks that came with it, Lutz evaluated three financing options.

The first was to tap into her immediate network to look for investors or potential partners. A couple of her friends had expressed interest in partnering with her, but they wanted to be actively involved in the decision-making. Lutz decided that they would not work well together, so she eventually eliminated that option.

The second option she evaluated was obtaining capital from an angel investor. She was unfamiliar with the process but was advised to participate in trade shows and exhibitions that could provide her with a platform to demonstrate her product and attract investors. She gave this option serious thought, but had misgivings about the time and effort it would take to go this route.

The third option she considered was bootstrapping. She had USD 200,000 in savings that she could use toward the venture and her living expenses. In the end, this option won out as she liked the idea of retaining complete control of the company and felt that within 12 months she would have revenues to support the business and provide a salary for herself.

On Her Own

Lutz wanted to ramp up the company as quickly as possible. She had thought that she could refine the prototype, obtain patents, establish distribution channels, and have the pump to market within 15 months. After quitting her full-time job, she entrenched herself in the company. In March of 2015, she hired her former col-

league, Sam Kelton, to be her lead engineer. Lutz would have liked to have hired a few additional engineers and an operations manager as well, but she did not have the capital to do so.

Despite being shorthanded, Lutz and Kelton made good progress in the first few months, but after eight months, things started going awry. The product was not even close to where Lutz thought it would be at that point. Furthermore, Lutz's cash reserves were already much lower than she had anticipated they would be at that point in time. Originally, she thought they would have only used USD 100,000 by that point; instead they had already burned through USD 160,000.

One of the biggest problems was that Lutz and Kelton still had not finalized the prototype. The two had gone back and forth on several designs but could not get to an ideal design. This was holding up some of the company's patent applications. It was also holding up discussions with potential contract manufacturers to make the pump. Furthermore, Lutz had been so busy with design and other activities that she had not even started to establish distribution for the pump.

By December of 2015, Lutz only had enough in her savings to keep the company afloat for another two months and would be nowhere near market-ready. It was at this point that Lutz realized that she desperately needed to bring in outside capital. She then turned her focus to raising capital. At a minimum, she needed to bring in at least USD 1 million to keep the company going for the next year: there would be over USD 150,000 in legal costs for obtaining the patents; she still had about USD 150,000 in development costs; she needed to spend USD 200,000 on marketing; she needed to invest USD 400,000 to get the contract manufacturer set up; and she needed USD 100,000 for salaries.

Lutz knew that it was going to be a real challenge to raise the capital she needed within two months, especially since she did not have experience raising capital. One of the biggest obstacles was how to value the company and how much of the company to give to investors. The company had no revenues and the only assets it had were one patent and three provisional patents. Lutz's research on new venture valuation suggested that most of the value would be in the company's ability to offer a unique product, which would ultimately drive revenue and profitability. She analyzed the global pool market and came up with a pro forma financial projection on which to base the valuation of the company (Table 1).

Table 1. Five-Year Financial Projection

Revenues

Sale of pump units	75,000 × USD 800	USD 60,000,000
Total revenue		*USD 60,000,000*
Costs		
Production cost of unit	75,000 × USD 350	USD 26,250,000
Administration costs	USD 3,500,000	USD 3,500,000
Total costs		*USD 29,750,000*
Potential profit		**USD 30,250,000**

Lutz conservatively felt that within five years the company could be selling 75,000 pump units per year. This was based on the market penetration that Lutz thought the firm could establish within the first five years: there are over 6,000 pool stores that serve the 10 million pool owners in the United States. Three companies control over 2,000 of those stores and the rest are independent. If EnviroPump could access 1,500 of those stores, and each store sold 50 units per year at USD 800 per unit to the distributors, this would equate to over USD 60 million in revenue. Although this was a lofty number, Lutz felt it was still justifiable as it was only factoring penetration into part of the U.S. market and did not factor in international sales, which could be substantial, as there are an additional 12 million pools globally.

EnviroPump's margins were projected to be quite healthy. The direct manufacturing costs were about USD 350 per unit. The other substantial costs for the company were general and admin. Lutz was projecting to spend about USD 2 million annually in salaries, USD 1 million for an office and R&D facility, and another USD 500,000 in miscellaneous expenses.

Lutz projected that within five years the company would be reaping a net profit of about USD 30 million per year. With potential profitability like this, the company would have tremendous value; similar niche technology companies at the time were being sold for multiples of seven to 10. Thus, if Lutz hit her numbers, the company should achieve a valuation somewhere around USD 182–260 million. Of course, EnviroPump had not even sold one pump at that point and had a long way to go before it was worth those big numbers, but it did

have a lot of potential to offer early-stage investors.

To come up with a fair amount to ask investors, Lutz found several startup companies through Crunchbase (a database containing industry trends and information about companies, from startups to the Fortune 1000) that were similar in nature to EnviroPump and had received early-stage capital. Most of the comparison companies had received USD 1–3 million for a 20–30% equity stake. Based on this, Lutz felt that asking USD 1.5 million for a 25% stake would be enticing to investors. However, she wanted to leave some flexibility, and therefore left room for offers, her hope being that she might find some investors willing to give her the capital for less than 25% of the company. Thus, she put together a private placement memorandum with a pre-money valuation of USD 6.5 million, but left the terms vague; more specifically, she left the offering open to convertible debt and participating preferred stock and worded the prospectus to leave it open to offers. Her reason for this was to possibly elicit more favorable offers and, being new to the capital-raising process, she did not want to scare off any investors with the terms that she had come up with. Although she left the terms open, she was hoping to secure USD 1.5 million. She initially projected for USD 1 million, but because she had grossly miscalculated how much capital she would need in the first 15 months of operations, she wanted to ensure that she had a USD 500,000 buffer. After Lutz settled on the ask, she got to work putting together prospectuses and contacting investors.

The Offers

Lutz did not get a lot of interest for the better part of two months. It was difficult for her to focus on a certain type of investor; she was not in the ideation phase, so a lot of angel investors were not interested. But neither was she in the growth phase, so not a lot of traditional venture capitalists were interested. However, she was relentless and contacted over 400 potential investors, and finally a few offers came in the two weeks before she was going to completely deplete her savings. None of the offers were ideal, but they all had their merits.

KFT Capital

The first offer was for USD 1 million for 25% of the company from a midsize VC firm in Minneapolis called KFT Capital. The offer was for convertible stock (a type of preferred stock that grants the shareholder the option to convert the preferred stocks into common stocks) with an interest of 2%. This investment would be staged

in four phases over 18 months, with the company getting USD 250,000 upfront and then USD 250,000 every six months, provided EnviroPump met the covenants of the term sheet. The covenants were not too onerous to achieve, but they still worried Lutz. There were three that were of particular concern:

1. EnviroPump must have three patents fully filed within six months.
2. The final prototype must be completed and in production within six months.
3. EnviroPump must achieve USD 1 million in sales by the end of year one.

Lutz's biggest fear was that if she did not meet these milestones, the VC firm could withhold funds, which would put the company in a predicament similar to the one they were currently facing. However, the management team of KFT was adamant that this almost never happened, and that if they let their portfolio firm's cash dry up, they would lose their investment. Lutz was inclined to believe them as her research on KFT turned up nothing but positive reviews; the company was well regarded in the venture community and all nine of KFT's portfolio firms that Lutz spoke to had nothing but good things to say. All of the firms she spoke to went into great depth on how KFT offered smart money; that is, in addition to capital, they provided invaluable strategic advice and access to their vast network. KFT could get the initial USD 250,000 to Lutz within one month and would also be willing to give her a USD 50,000 bridge loan within a week to make sure EnviroPump could meet its short-term financial obligations, such as pending payments to vendors, salaries, and overhead costs. In addition to the equity, KFT wanted one of the five board seats.

Kefton Capital

The second investment offer was for USD 1.5 million for 15% preferred equity from Kefton Capital in New York. Kefton was a well-known billion-dollar fund that focused on technology startups. Like the first offer, this investment would be staged: USD 500,000 upfront and then three different USD 250,000 investments over an 18-month period. The milestones for this offer were even tougher than they were for the first offer:

1. Production must commence within six months.
2. Distribution to 500 pool stores within six months.
3. Sales of over USD 2 million within one year.

These were challenging milestones, and Lutz was not completely confident that they could be achieved. Not only did she fear not being able to meet these milestones, which could mean leaving EnviroPump with no

capital, she also feared this VC firm. Kefton Capital was known for cash starving its portfolio firms and then renegotiating much better terms for themselves. For example, one of Kefton's portfolio firms told Lutz that Kefton had withheld an investment payment because of a technicality and then came back to the firm and demanded three times the amount of equity that was originally agreed upon. The portfolio firm acquiesced because they so desperately needed the capital. In turn, Kefton took control of the portfolio firm and subsequently fired most of the top management team. However, this was an extreme example. Several of the portfolio firms that Lutz contacted indicated that Kefton was actually good to work with. Nevertheless, it still deeply bothered Lutz, especially since Kefton was requiring two board seats. Lutz had heard horror stories of how the board seats were a Trojan horse into taking over the company. On a positive note, though, Kefton indicated that they should be able to complete their due diligence and have the first USD 500,000 to EnviroPump within three weeks.

ZKL

The third investment offer was for USD 2 million for a 15% preferred equity share of EnviroPump from a firm called ZKL Ventures in Dubai. Lutz had met one of ZKL's principals, Abdul Bazzi, two months earlier at a clean technology convention. Abdul had expressed strong interest in investing in EnviroPump and had indicated that his firm would like to be the sole investment partner with EnviroPump. The week after the conference, Lutz had a teleconference with all of the partners in the firm, and ZKL had tentatively agreed to invest in EnviroPump. Lutz then sent all of the legal documents to them, but for over a month did not hear back, despite the many emails and calls that she put in to them. She had figured that they lost interest, but then out of the blue received a term sheet from ZKL in the mail. The term sheet was very favorable, and they made it clear that they wanted to be the only investors, and hence wanted to give her an offer significantly better than anyone else's. Not only were the terms better, but she would get more money upfront and would only have one milestone to achieve to get the second million. That milestone was having USD 500,000 in sales by the end of year one. The only other concern about the term sheet was that it made it extremely difficult to work with other investors. Furthermore, ZKL made it clear that if EnviroPump did not accept their capital now, they would not be interested in investing in them in the future.

Despite the fact that the term sheet was by far the best, Lutz still had trepidation about working with ZKL. Her biggest concern was the communication issues. The firm had not gotten back to her in close to a month,

despite the many times that she tried to contact them. She was worried that communication issues could be a big problem moving forward. Closely related, Lutz worried that it might take a while to get the initial investment. Abdul and his partners had indicated that they would get EnviroPump the initial one million dollars very quickly, but they did not declare exactly when. If EnviroPump went much over a few weeks without getting a capital infusion, the company would go under. She was also concerned about working with an overseas VC firm. ZKL seemed like a reputable company, but Lutz's due diligence on them did not turn up a lot of information. The company was registered with the government in the United Arab Emirates as an investment house and had invested in 12 companies; most of these companies were in the Gulf region, and Lutz was only able to successfully get through to one of them. Furthermore, the company she got in contact with was not willing to give her very much information—neither good nor bad.

Lutz's Dilemma

Lutz had to make a decision and had to make it quickly. With USD 20,000 left, and at the burn rate EnviroPump was on, they would go through the rest of Lutz's savings within two to three weeks. Given the time constraint, she had to choose one of these offers and have one of the term sheets signed within the next 24 hours in order to get the inurement capital in time to keep EnviroPump afloat.

Discussion Questions

1. What are the challenges of self-financing a startup?
2. Lutz has run into a financial bind. What do you think about her initial decision to bootstrap the business up until this point?
3. How many units would Lutz have to sell to meet each VC offer?
4. Discuss the pros and cons of each VC proposal that Lutz has received. Given the pros and cons of each, which VC proposal would you choose? Justify your answer.

Further Reading

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