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10/11/2020

Cascade Engineering

Case Study

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Describe the vision, mission, and culture of Cascade Engineering

Vision:

To be an environmentally conscious organization with a triple-P idealized vision – People, Profit, and Planet.

Mission:

- Social mission as well as a financial one
- Propagate societal change by focusing on delivering sustainable products to its customers
- Reduce impact on environment and as well as impact that its customers have on environment when using its products
- Be a learning tool for themselves and other mid-sized companies

Culture:

As mentioned on their website: “The Cascade Engineering Family of Companies is a family-owned business that is committed to creating an inclusive work environment in which every employee knows they are valued. We have found that a culture based on inclusion unlocks each employee’s full potential and empowers them to be fully engaged and committed to our mutual success. We believe diversity drives our innovation and as an organization, we thrive on collectively solving difficult challenges that will improve our community, our environment and our financial prosperity.¹”

They are proactively inclusive of diverse employees and have proven track record of open dialogue on numerous difficult topics.

¹ <https://cascadeng.com/our-culture>

How does WaterWheel align with the mission, vision, and culture of Cascade Engineering?

Waterwheel was a product that made drinking water safe in developing countries, by aiding in transportation of the water from distance sources to homes. Not having access to clean water is the largest cause of death in the world, with the death toll higher than any disease or even war, the number currently being twice the population of USA. It is common problem in many developing countries. Often, women and girls walk for long distances and then have to carry jugs of water on their heads back to their homes. This is a time consuming as well as being physically taxing. The Waterwheel eased their task which would otherwise take about 25% of their daily time.

The product is made of durable, high-quality plastic – a natural fit for Cascade. Its balanced size, shape and handle made the product ergonomic enough to being commercially viable for Cascade. Waterwheel's wide mouth opening, and cap-in-cap design kept the water clean during transportation as well as promoted ease of use. The similarities made Waterwheel as a sounding business opportunity. Furthermore, it aligns with Cascade's vision and mission, of bringing on sustainable societal change while bringing on financial gains.

How does WaterWheel align with the strategy of Cascade Engineering?

Cascade Engineering philosophy stated in the Triple Bottom Line report is:

A higher level of organizational accountability

A balanced approach to continuous improvement

An important leaning tool – for us and other medium-sized companies²

Aside the mentioned, Triple Quest, a strategy unit at Cascade, has already collaborated with Windquest Group, a private investment firm, to distribute Hyraid Biosand Water Filter in partnership with NGOs, corporations, and entrepreneurs. As stated by the Managing Director of Triple Quest, Marta Johnson, their objective is to provide the developing world with the essential needs products that help combat poverty.²

With WaterWheel's model and already successful reach as promoted in the TED Talk, it aligns perfectly to Cascade's strategy goals and compliments their previous engagements.

Furthermore, it fits Cascade's checklist of decision-making factors as dictated by Cascade's management, which was drafted to help decide whether a business idea warrants deeper analysis and consideration (as shown in Appendix A for the paper).³

Appendix A
High-Level Filter

This is a checklist of decision-making factors provided by Cascade management to help decide whether a business idea warrants deeper analysis and consideration.

ALIGNMENT WITH NEW BUSINESS OBJECTIVES		YES	NO
1.	Leverages existing technology, acquires customer markets, and/or creates new IP	<input type="checkbox"/>	<input type="checkbox"/>
2.	EBIT can be positive within 3 years	<input type="checkbox"/>	<input type="checkbox"/>
3.	Ability to launch/acquire quickly (12-18 months)	<input type="checkbox"/>	<input type="checkbox"/>
4.	Utilizes CE value chain, resources and has CE champion	<input type="checkbox"/>	<input type="checkbox"/>
5.	Has identified potential customer(s) and channel(s) to market	<input type="checkbox"/>	<input type="checkbox"/>
6.	Fits with CE's values, vision, and strategy (SUSTAINABILITY AND INNOVATION)	<input type="checkbox"/>	<input type="checkbox"/>

² <https://hbsp.harvard.edu/import/742741>

Who are the key stakeholders in Cascade and what were their roles?

Key Stakeholder	Role
Fred Keller	Founder
Christina Keller	President and CEO
Mark Miller	Ex-President
Kenyatta Brame	Executive Vice President
Janice Oshinski	CFO
Marta Johnson	Managing Director, Triple Quest
Ben Grostic	Project Coordinator, Triple Quest
Rony E Meza	Regional Manager, Tripe Quest
Terrance Robinson	Associate Engineer, Cascade Engineering
Brian Walker	Board of Directors
Fred Keller	
Christina Keller	
Derek Kaufman	
Craig T Hall	
Marie Eckstein	
Dr. Lorissa Keller MacAllister	

Who are the two most important stakeholders who might support Terrence Robinson the strongest, and what is motivating their support?

The two most important stakeholders who would be most inclined to support Terrence would be Christina Keller and Marta Johnson.

Christina Keller had previously led Triple Quest. She had said that if the business model worked, “the product line would expand to include things like solar lanterns and cookstoves, and other essential-needs products to people at the base of the pyramid”. She was also pragmatic of the fact that all ventures might not be successful, but maintained that “if it fails, at least a lot of people would get clean water.”² These direct quotes showcase her inclination towards this project.

Similarly, Marta Johnson, being the current Managing Director of Triple Quest, has stated her support and motivation for the venture. She is also part of another project for new water filter. This would be symbiotic for her professional growth in the area.

Who might require more persuasion, so they do not create roadblocks?

Ben Grostic could require more persuasion. Being the project coordinator at Triple Quest, he shows being very detail orientated from the email exchanges. He pinpoints requirements of interviews for 20 users. His inclination to create successful case studies indicates his high expectations from the team and task at hand. In the emails, he goes into editing content and suggestions of how to capture pictures, all of which seem redundant and feel more bureaucratic in nature rather than task oriented.

What are the rational, i.e. fact-based, and emotional arguments for the WaterWheel that Terrence can use with his stakeholders?

Terrence could use the below pointers as guideline to craft his story for his stakeholders:

- Access to clean water is the most troubling crisis of our times. More than double of US population is killed till now because of this. This number is far greater than people killed by any disease or war. By 2025, this number is projected to reach 5 Billion.
- The product is made of durable, high-quality plastic – a natural fit for Cascade.
- WaterWheel is complimentary to Triple Quest business unit, Hydraid Filter. Acquiring it under the same roof would be financially rewarding.
- This venture could pave pathways that can open doors in the future in term of new NGOs, investment firms, etc. It can also promote their image of being a leader amongst mid-sized companies, for being a successful organization tackling sustainability and economic growth, in times when environmental issues are at humanity's doorstep.

If you were Terrence, who would you look to first to discuss your idea? Why? What messages would you communicate to persuade this key stakeholder?

If I was Terrence, I would approach the CEO Christina Keller first. Her being the past director of Triple Quest, would make the introductory pitch easier. I would begin with the need to call for the cause of access to clean water, with all the statistics that would paint the picture better than words. Followed with what is out there that is successful in itself, i.e. WaterWheel, mention the TED Talk, and how Cascade Engineering can promote it on a much larger impactful scale. This would be backed by facts and figures for Cascade's ability to use the innovation as a tool to be combined with Hydraid BioSand Filter.

However, this would be more of success if it was bottom-up idea in the organizational context. I would also approach stakeholders in business units and strategy unit and promote the same emotional as well as pragmatic response in as many of them as possible, reducing roadblocks proactively.

How will you measure the impact of the WaterWheel program if it is approved? Define the Key Performance Indicators (KPI's) for measuring the efficacy of that program, how you would collect and verify the data needed for each KPI, and how you will report the performance of the program to internal and external stakeholders.

The following KPIs can be used to measure the efficacy of the program:

1. **Product Adoption Metrics:** These KPIs can help identify the success or failure of the venture
 - i. Product Trials: This can track metrics to show real-time interest or inclination for the products, which would be a direct correlation to the effectiveness of it. This will also be a good determinant of any necessary adaptation to the market needs.
 - ii. Customer Usage: This can track consumer inclination growth or fall for the product. This can aid in future marketing and product development strategy.
 - iii. Customer Retention: This can help in tracking revenue generation indirectly via customer involvement with the product
2. **Market Impact Metrics:** Sustainability market is slowly becoming competitive with everyone using terms like 'Green deal', at times for mere marketing purposes. These metrics can help track key indicators of noteworthy competition.
 - i. Revenue: critical KPI to track business and impact.
 - ii. Market Share: critical KPI to tell us how well the product is performing within the industry
 - iii. Competitive win rate: KPI to identify market performance in comparison to similar products.
3. **Qualitative Feedback Metrics:** Not all KPIs can or should be quantitative in nature. These metrics can be gathered from internal and external audiences
 - i. Internal Feedback: Collect feedback from employees and vendors, including sales, marketing teams, executive and product manager. Comparing these to their respective desired outcome could be informative

- ii. External Feedback: Feedback from consumers, prospects and additional vendors can signify issues with logistics, channels and other launch elements.⁴

⁴ <https://www.crayon.co/blog/the-secret-to-product-launch-success-kpis>