We Can Coffee: Can We?

An Interactive Qualifying Project submitted to the Faculty of WORCESTER POLYTECHNIC INSTITUTE in partial fulfilment of the requirements for the degree of Bachelor of Science

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Report Submitted to:

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Sponsoring Organization
New England Sci-Tech
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Abstract

We Can Coffee Company was a defunct e-commerce charity coffee company created by Professor Radzicki, which he wanted to revive to function as a benefactor to New England Sci-Tech. Our team worked with Professor Radzicki and New England Sci-Tech to rebrand and reintroduce We Can Coffee Company back to the market. Market analysis, team brainstorming, and collaboration with AI tools allowed us to craft a plan that would fulfil our goals while acknowledging potential limitations. Due to the nature of this ongoing project, our team created recommendations for future IQP teams that address issues that could arise, such as legal, creative, technical, and cost-oriented issues. These recommendations supply a better understanding of the demands of the business and the significance of professional interpersonal relationships.

Acknowledgements

Our team would like to recognize and thank the people who were critical to the success and completion of our project.

Bob Phinney and New England Sci-Tech, our project sponsor, for their support, resources, and platform to lift our project off of the ground.

Professor Radzicki, our project advisor, for his guidance, insights, and unwavering support throughout the project.

Stu Hilger, for his professional insight and market analysis, which set the tone and expectations for our project. These both laid the foundation for our own research, which in turn influenced our name and image rebranding techniques.

The New England Sci-Tech Winter Field Day visitors, who expressed their interest and gave us valuable outsider perspectives on our project.

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1.0 Introduction

Among the ever-changing stages of modern commerce, the rise of e-commerce, or electric commerce, is a testament to the transformative power of digital technology. E-commerce has revolutionized both the way businesses operate and how consumers behave, offering unseen convenience, efficiency, and accessibility. Online platforms significantly lower the barrier to entry for aspiring entrepreneurs in the e-commerce space, meaning nearly anyone with Internet access can create their own store and conduct global business.

Our project focuses on We Can Coffee Company, a defunct e-commerce charity business with the mission to support youth STEM education. Born from the ashes of No Sculls Coffee, an e-commerce charity coffee company founded by Professor Radzicki and former WPI students in 2010 to support first responders and military service members, We Can Coffee understood that social good can and has been accomplished through the power of e-commerce. This comprehension made the goal of generating funds for New England Sci-Tech, a STEM education center in Natick, MA, clear and attainable.

The path to this goal, however, was not linear. With We Can Coffee being started as a hobby rather than a full-fledged business, key members of the organization gradually left to continue focusing on their own careers, eventually leaving Professor Radzicki with the venture. Two options presented themselves: shut down the business permanently, or create a new course of action to keep the business going. Professor Radzicki made the decision to enlist the unique talents and insights of WPI IQP students to help rebrand and revive the business.

Central to our methodology was a comprehensive market analysis, which helped our team understand the number and type of people willing to buy our product, the dynamics of our market sector, and the potential competition we may face. By working ourselves into the nuances of e-commerce, we hoped to discover opportunities for differentiation and strategic planning. We learned that the charity STEM coffee niche was teeming with competitors and a fairly receptive target audience. With this knowledge, we aimed to rebrand We Can Coffee to help communicate what it does and who it is for to have it truly resonate with its target audience.

To accomplish the goal of rebranding and reviving, our team created a general outline of tasks to complete:

- 1. Name rebranding
- 2. Image rebranding
- 3. Website updating
- 4. Marketing

The remainder of this report goes through our research and market analysis, our creative processes, marketing tactics, and conclusions and recommendations to future IQP teams who work on this project.

2.0 Background and Literature Review

2.1 Introduction

To understand some nuances within the project, this section first addresses background information pertaining to We Can Coffee's prior identity, No Sculls Coffee. From this prior identity, we discuss how We Can Coffee came to be. We then briefly address We Can Coffee's website, to provide an understanding of decisions made in our methodology. Next, we introduce New England Sci-Tech, a STEM education center, and their role in our project. Finally, we conclude with a review of an expert consultation.

2.2 No Sculls Coffee

Sculling, in golf, is to hit the golf ball with the leading edge of the club, resulting in an unpredictable and fast shot. As a clever pun on this fact, No Sculls Invitational was the name of an annual backyard golf charity tournament started by Professor Radzicki and his family. All entry fee money for this tournament was donated to Friendly House in Worcester, a non-profit organization which has been active in Worcester, MA since 1920. This family-run tournament provided all entrants with a t-shirt, with the No Sculls name and logo being displayed, which was a skeleton hitting a golf ball. This logo was beloved by participants and spectators alike, and was altered to have the skeleton performing other golf-related activities for each following year. One year, a participant approached Professor Radzicki and suggested that he sell the t-shirts online with the No Sculls logo, and also sell hats and mugs. After researching, Professor Radzicki soon founded No Sculls in 2010 with former WPI students as an "edgy" e-commerce golf clothing brand, intended to appeal to 18–35-year-old males who enjoyed golf but did not want to conform to the typical "high-class" golf culture. Eventually, this business was able to expand to tennis, since it was possible to scull the ball in tennis; the skeleton would now play both golf and tennis. Unfortunately, the emergence of COVID-19 quickly ended these golf tournaments.

At around the same time as these tournaments, Professor Radzicki's former colleague and friend at WPI would frequently return to the United States to visit from Colombia, bringing bags of coffee from where he lived. One day, this friend suggested that Professor Radzicki sell this coffee to put in the No Sculls mugs, offering to label and ship the bags of coffee directly from Colombia. Just before this idea took off, this friend got very ill, and had to move back to Florida, ending this prospect. Not wanting to give up on the coffee idea, Professor Radzicki decided to

drop ship coffee for the brand. After sorting through and working with a few suppliers, No Sculls ultimately selected Temecula Coffee Roasters as their supplier.

In light of COVID-19 and the uncertainty of its severity, No Sculls decided to pivot away from the Seven Hills Foundation to focus on supporting first responders and military service members. To accomplish this, No Sculls would donate bags of coffee to ambulance corps and fire houses, and send them overseas. If the recipients posed for photos, No Sculls would send an additional bag. Time permitting, No Sculls members would go and drop off coffee locally.

Eventually, it was decided that No Sculls needed a stronger e-commerce marketing presence, since everyone on staff had full-time jobs beyond the business. bBig Communications would end up being selected as the media company to propel No Sculls forward, primarily due to their specialization in military families and large mailing lists. Professor Radzicki handed over No Sculls to bBig, which then ran the business and kept him updated. During this time, staff gradually left the project to pursue their own careers, leaving only Professor Radzicki and bBig.

bBig determined in a focus group that the name No Sculls was not a good fit for the brand. Men liked the brand, which was the initial target audience, but only drank the coffee; the women in their lives bought the coffee for them, but did not like the branding. bBig then suggested changing the name to We Can Coffee, which Professor Radzicki agreed to, and the name soon stuck after approval from focus groups.

With this new name, bBig began filming commercials with military wives, and reported seeing higher clickthrough rates for the ads than any other similarly sized startups they had seen before; despite this news, people would visit the website and not buy the coffee. The leading theory behind this discrepancy was the prices, since military families typically did not have a lot of money. bBig then offered to completely take over We Can Coffee, since it showed so much promise; they offered Professor Radzicki 20% of all profits they made, and he accepted it. After breaking even, bBig contacted the Professor once more to terminate the takeover.

After cutting ties with bBig, Professor Radzicki created an IQP for the We Can Coffee project, giving it one last chance to thrive before putting it to rest. He wondered if a team of students who might approach the problem differently than the current set of eyes would be able to do something new.

Upon reflection, Professor Radzicki recalled the numerous rivals in the military charity coffee market, and how they would frequently copy strategies employed by We Can Coffee. These rivals were also founded by service members, whereas No Sculls was not, leading to a clear credibility issue. Wanting to leverage on his own credibility as a STEM professor, as well as his students, and appeal to like-minded people, Professor Radzicki pivoted the business towards STEM education charity.

Professor Radzicki also enjoys HAM Radio as a hobby, leading him to fortuitously work at New England Sci-Tech for a HAM Radio event. Inspired by New England Sci-Tech, Professor Radzicki approached Bob Phinney, the founder of New England Sci-Tech, and asked him if he would like to work with We Can Coffee and be the beneficiary. After consulting with the board of directors, approval was granted, and the project could begin.

2.3 We Can Coffee Website

2.3.1 Initial Products and Services

We Can Coffee offered approximately 40 flavors of coffee, with each flavor being offered in 5 different sizes and with 4 different levels of grinding available.

"Coffee Clubs" were also available, which were subscription services that would deliver coffee at an interval specified by the customer's chosen subscription plan. These subscription plans had discounts ranging from 5% to 10%, varying by plan.

2.3.2 Initial Images

We Can Coffee used multiple images on its website to make it stand out, as well as look professional. Such images included the logo itself and various stock images to showcase where our profits were going: children in STEM. While the images themselves were acceptable, the image quality and placements were not. Additionally, there we no photos of New England Sci-Tech or their events present on the website.

Images are also utilized to show off the different coffee products. Having 40 flavors of coffee available on the website, each with 5 different sizes and 4 levels of grinding, We Can Coffee's website required approximately 800 different product label to showcase every product offered, which were displayed separately from Temecula's label management system via Shopify.

Within Temecula's label management system, images were named by their flavor and coffee type, and required a unique stock keeping unit number, or SKU number, per image; when one flavor has approximately 20 labels, it proved difficult to find the right SKU number based on image names alone. The resulting catalog of labels was unorganized.

2.3.3 E-Commerce Services

We Can Coffee's website uses Shopify to create a digital storefront and design the overall look and feel of the website, while using Temecula to fulfil the coffee orders. By connecting our Temecula account with a Shopify business account, we are able to have customers' orders fulfilled through our website and receive insights on transactions. Such insights include our most frequently purchase items, shipping information, fulfilment information, and customer information.

2.4 New England Sci-Tech

New England Sci-Tech is a non-profit STEM education center in Natick, MA that introduces children to the STEM field and allows them to explore their potential interests in their desired field. It was founded by former teacher Bob Phinney in 2018, with a large collection of unique memorabilia, such as a piece of rock from the moon and hi-tech telescopes, that he collected over the course of his career. New England Sci-Tech's mission is to help develop the next generation of scientists and engineers and equip them with the skills they need to succeed with the aid of their volunteers.

New England Sci-Tech hosts an annual Winter Field Day, which has a HAM Radio event and contest, activities, guest speakers, planetarium shows, games, and movie night. This event is open to the public, and typically has guest booths set up throughout the day, offering a range of services to visitors.

2.5 Expert Consultation

2.5.1 Stu Hilger

Stu Hilger is a fellow colleague of Professor Radzicki and a retired businessman with an MBA from Northwestern University (Radzicki). Stu Hilger started multiple e-commerce businesses professionally, often selling them to larger companies for a profit.

2.5.2 Initial Market Analysis

Stu Hilger created his own market analysis of We Can Coffee, and presented this analysis to our team before the project started. This analysis broke down who our target audience was and why, charitable coffee competitors, a product potential analysis, and general points of consideration.

2.5.2.1 Determining Target Audience

The following question was posed to our team by Stu Hilger, in regard to thinking about starting an e-commerce business in general: how do we connect with potential customers? To break this answer down, he started with broad categories that narrowed down who We Can Coffee is truly looking for; we would need American coffee drinkers, where either parents or STEM students in college are purchasing, who brew their coffee at home, purchase products online, and who are willing to purchase on an ongoing basis and potentially switch from their current coffee brand. In Figure 2.1, Stu Hilger demonstrates just how small that demographic is, which will determine how we market We Can Coffee going forward.

EXAMPLE 1: Addressable Market Segment

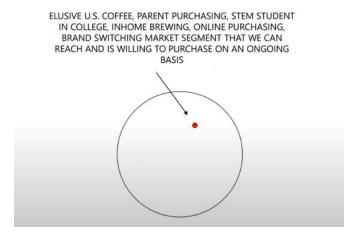


Figure 2.1 – A graphic created by Stu Hilger, where We Can Coffee's target audience is represented as a small red dot in a large white circle.

2.5.2.2 Charitable Coffee Competitors

When viewing charitable coffee competitors, Stu Hilger noted that there are many competitors in the space of coffee, who typically offer their coffee at lower prices than We Can Coffee. These competitors typically cover charitable causes such as police, fire fighters, veterans, Girl Scouts, churches, and various other special interests and fundraisers. It should be noted that Starbucks is included in these competitors, a large coffee name that people are unlikely to switch from. The advantage that We Can Coffee has, according to Stu Hilger, is that the STEM coffee charity market is fairly niche, with few competitors.

2.5.2.3 Product Potential

In order to effectively assess a product or business's potential, Stu Hilger has a chart that can determine at a glance the problems a business may encounter (Appendix A). This chart displays 12 key issues, each with a gauge next to it ranging from "good" to bad", with 8 spaces in between; these even number of spaces are crucial, as they do not enable a neutral stance on any issue.

Completing this chart with his professional opinion on We Can Coffee, Stu Hilger noted there would be many downsides to running this business: low anticipated revenue due to small market size, difficulty finding target audience through general marketing tactics, and a low barrier to entry; nearly anyone is able to start an online drop shipping coffee business, and can just as easily brand it as a STEM charity. This low barrier to entry would create higher levels of competition within our niche, Stu Hilger concluded.

This chart also demonstrated key strengths present within We Can Coffee's model, such as a strong potential reputation due to a wholesome mission and STEM student and advisor credibility, ease of testing new product changes, and a fairly simple production process.

2.5.2.4 Conclusion

Stu Hilger concluded the presentation with a slide full of important questions to consider when continuing with this project (Figure 2.2). These questions, rhetorical in nature, were intended to guide our decision making and asked about who will be purchasing the coffee, the current and future legal structure of We Can Coffee, potential licensing costs, the viability of the operation, and the significance of being STEM affiliated.

IMPORTANT QUESTIONS

- Who buys? Who does the shopping? Is it a shared pot of coffee?
 Who makes the coffee at home?
- Potential retention of customers after initial charitable motivated purchase? Recurring revenue stream?
- Competition?
- Current and future legal structure of We Can Coffee, i.e., "remnant shareholders"
- · State / federal licensing costs / requirements
- Operating costs, warehousing, fulfillment, shipping cost metrics
- Target markets and marketing costs, social media, Facebook, partnership pages, etc.
- Is the social impact meaningful, i.e., charitable contributions?
- How much can we sell? Can we make \$\$?
- Importance of STEM Affiliation is it motivating? Parents of STEM students? STEM graduates?
- Is this business viable? Should we continue the operation?
- Fundamental motivations to run business? Is coffee a passion?
 Make \$\$\$? Support STEM?

Figure 2.2 – Stu Hilger's slide containing questions to consider as the project goes on.

Before ending the presentation, Stu Hilger gave his general recommendation for how to test our brand, using HAM Radio as an example (Figure 2.3). These recommendations insinuated that We Can Coffee needed to dip its toes into the water before making a full dive, and should do so strategically.

HOW TO TEST MARKET

A / B TESTING OF BRAND

- Test brand and potential target markets, e.g. male vs. female, STEM vs. HAM Radio
 - Run Facebook, Google and Amazon ads with different content testing brand positions
 - 3. Run site specific advertising on 4 6 HAM and 5 7 STEM sites
 - 4. Unknown repeat customer / retention percentages
 - Costs to test? Estimated \$5,000 \$7,000 for site customization, ad development and CPC total expenses

Figure 2.3 – Stu Hilger's slide providing a step-by-step example of how testing a brand would be conducted.

Overall, Stu Hilger thought that while We Can Coffee had an agreeable mission as a STEM charity and could be popular with consumers, the niche was too small and too vulnerable to competitors to be viable in the long term without sufficient strategy and effort.

3.0 Methodology

3.1 Introduction

The goal for our project was to bring We Can Coffee Company back to the market. We held frequent discussions with Professor Radzicki to determine our starting point. We concluded that creating a business plan would be the best course of action. A business plan typically outlines the goals for a business and the roadmap to achieve them, as well as offering insights into needs for growth and attract potential investors. The creation of a business plan would mold the direction of our project, and give us milestones to strive towards throughout the duration of our project.

3.2 Formulating a Business Plan

After utilizing online resources and ChatGPT, a natural language processing chatbot driven by generative AI, our team created a business plan document consisting of nine components (Ortiz). This plan consisted of our value proposition, customer segments, marketing and sales channels, plan to build customer relationships, revenue streams, key resources, key activities, key partnerships, and cost structure (Appendix B).

According to our research, a value proposition details what our business offers, how we can help our potential customers, and why our customers would pick us over our competitors (Coleman). In the case of We Can Coffee, we offer high quality coffee delivered straight to your doorstep in a variety of different flavors, with 100% of our profits going to STEM education.

Customer segments delve into who our target audience is and figuring out their common characteristics, beliefs, demographics, and behaviors so that we can be more impactful when we reach them (Qualtrics). From our meeting with Stu Hilger, we already understood that our target market would include upper-middle class parents and others involved in STEM, and discussed how feasible this audience would be to reach. While we agreed this group of people would have the money to purchase coffee, we also acknowledged that we would like to grab the attention of younger people as well to help bring our product to the attention of parents. Additionally, their ties to STEM would allow our business to resonate more with them. We combined this information with our own experience as students deeply involved in different sectors of STEM to form our own estimates on how our target audience would behave. We believed that among this audience, we would see particular pain points with delivery times and pricing since Amazon, one

of the world's leading e-commerce websites, has set a subconscious precedent in the minds of online consumers for fast and cheap product delivery.

Channels are the methods that we use to reach our potential customers (Mailchimp). Initially, we considered using Google Ads, a very common form of online advertising, but this would cost our business approximately \$0.11 - \$0.55 per click; if customers did not buy, we would be losing money before even making a sale (Maake). As an alternative, we decided that the best course of action was to reach out to potential customers using two methods: using New England Sci-Tech's email lists and reaching out to STEM influencers on various social media platforms. By using New England Sci-Tech's email list, we would be able to directly reach the parents of STEM children who are already familiar with our beneficiary, and would be more likely to support our business. By reaching out to STEM influencers, we would gain access to a broader audience of STEM interested individuals while offering the influencers a percentage of the revenue that their viewers generate for our business. Both methods would be almost free to implement, and would have a more direct impact on our target than Google Ads.

Customer relations are the methods we would use to build a strong name, connect to our customers, and make sure we offer a quality customer experience (Wellington). To connect with our customers, we needed to set up a company email so that they could have a direct line of communication. Additionally, a social media presence on both Instagram and TikTok would create an appeal towards emotional storytelling, allowing customers to relate to the business and its mission, and therefore more willing to support it.

Revenue streams are the ways in which our business plans to generate income (CFI Team). From We Can Coffee's existing business structure, we have income from one-time sales and subscription plans, both pertaining to the coffee products available on our website. For future growth, we have included the possibility of creating merchandise based on our logos as another potential revenue stream.

Key resources are techniques, assets, and people we would use to deliver our value proposition (Fox). New England Sci-Tech's email list and their Winter Field Day would be instrumental in marketing our business. Shopify and Temecula are mandatory for fulfilling customer orders, as well as managing customer interactions. For future growth, we plan on using social media platforms, mainly Tik Tok and Instagram, to engage directly with customers.

Key activities are essential operational processes and activities that we needed to perform to deliver on our value proposition (Indeed). Our long list of key activities includes, but is not limited to: managing Temecula, marketing our products, dealing with potential legal issues, public relations, and quality assurance.

Key partnerships are the people and businesses we plan on teaming up with to help further spread our name and increase our revenue (Fox). Professor Radzicki is a critical person in the story of We Can Coffee, and will act as a mentor and point of consultation as the business grows. New England Sci-Tech, our primary benefactor, will be instrumental in marketing directly to our target audience, as well as strengthening our mission. For future growth, We Can Coffee intends to create an affiliate program that would offer affiliates a percentage of profit generated through their organization.

Cost structure is our predetermined expenses required to run the business, and this can be split into fixed costs and variable costs (Schmidt). Presently our only fixed cost is Shopify, which charges a monthly fee to maintain an online storefront. Variable costs include ordering coffee from Temecula, which includes shipping costs, sales commissions, and utilities related to production. In the future, we foresee paying out affiliates as another variable cost.

Beyond our business plan, our team also created an updated market potential review, which changed and added some numbers to Stu Hilger's approximations, as well as analyzed our market potential if we broke into the HAM Radio sector as well (Appendix C).

3.3 Name Rebranding

3.3.1 Creative Process

With the business plan complete, our team turned our attention towards the business itself. Our biggest issue was with the name; "We Can Coffee" evoked neither the charitable nature of the business nor its involvement in STEM. We believed it was crucial to have a name that accurately reflects what the brand does, as it is the first thing a customer will notice when they are being convinced to purchase it (Evolve Create).

As a team, we agreed that the business name must mention two things: coffee and STEM. We also wanted to create names that were memorable, so we focused on making proposed names no more than 4 syllables and easily pronounceable. In focusing on name brevity, we were willing

to sacrifice the explicit mention of charity in our business name. With these criteria in mind, we were able to create possible names more strategically.

We utilized ChatGPT as a tool to produce multiple STEM and coffee themed words that we intended to workshop into a final name. When creating potential names, each team member created 10 names with the help of ChatGPT. ChatGPT was prompted to create a list of 20 names for a coffee company that tie into the science and technology theme and were four words or less. We chose to generate 20 names and narrow them down to 10 because ChatGPT tends to ignore some prompt criteria at random, and this would allow us to see where potential issues arise. After generation, each team member reviewed the list of names, ensuring the names returned were close to our criteria and selecting 10 that were acceptable. If the majority of names were unacceptable, we would alter our prompts to be more specific and leave little room for error.

We then compiled all 40 of our generated names into a document (Appendix D). Each member voted for their 5 favorite names, and any names without votes were discarded. We repeated this process again with each member having 3 votes, and once more where each member had 1 vote. In the end, we were left with 3 names: TechSpresso, BrewBot, and RobotRoasts. After deliberation we decided on TechSpresso, as we felt it was the most memorable, pronounceable, and marketable name.

3.3.2 Domain Securing and Search Engine Optimization

When creating a name for a business, one cannot decide on a name that is already taken in a particular industry, especially when the business is an e-commerce store. A business' web address, or domain name, is the modern-day equivalent of a brick-and-mortar store's physical location, and the online location is often more valuable to secure than the name itself. In other words, a primary necessity for a business is to have a web address that *is* the name of the business. Having a matching business name and web address will ensure customers know how to quickly and easily access the site to make purchases, doing so from anywhere in the world. This fact, however, adds a layer of complexity to the modern rebranding process.

The name Techspresso was chosen for our business and, prior to definitively confirming that it would be the new name, a search on the domain host GoDaddy's website was conducted. Techspresso.com was already taken on GoDaddy; the .com stores are the primary choice for a web address's top-level domain, or TLD, as they have historically been the most-common TLD

used. When a .com website is not available for use, the next prudent step is to search for techspresso.com to see whether the site is actively being used.

A search for techspresso.com found a website that was marked with, "techspresso.com is parked for free, courtesy of GoDaddy.com". This means that the site is taken, but not actively being used, which was great news. This news meant two things: firstly, a different TLD could be used in place of .com, and secondly, there would not be any competition against techspresso.com in the search results. When searching GoDaddy for Techspresso, one of the other TLDs that was available for use was techspresso.tech. This web address seemed to be a perfect fit, as it began and ended with *tech*, conveying the meaning of the business in the name of the web address itself.

Furthermore, search engine optimization, or SEO, needed to be considered. If we used a business name that already has a large online presence, a potential customer searching for our business would be presented with the most-relevant websites first, instead of our business' website. Since techspresso.com was not in use, there was a higher possibility that a search for *techspresso* would show techspresso.tech on the first page of the search results. Additionally, there were only about three other companies that showed up with the exact word *techspresso* when doing an online search: that also increases the SEO benefits associated with the name techspresso.

Once customers click on the website, they are monitored passively by the search engine's algorithm for "positive reactions", which will propel the website further toward the coveted top position in a search engine query. Positive reactions are when the users stay on the website for longer periods of time and click on links within the website, indicating interest; negative reactions would be quickly leaving the website after visiting. A high volume of positive reactions from online users causes the algorithm to believe that the website is more likely what future users are searching for. Because there was not as much competition for techspresso.tech as far as SEO goes, the website had the potential to quickly rise to the top of the search results of Google, the world's most popular search engine (Ivo).

The name Techspresso showed great promise not only because we could have the word *techspresso* in the business's web address, but also because there would be little search result competition; our customers searching for our website would see our website first, before

anything else. The first search result position would mean higher visits on the website by orders of magnitude and potentially more sales (Reputation911). Furthermore, those visits are considered "organic" in terms of SEO: they were the result of someone naturally going to the site after searching the word, opposed to landing on the site by clicking on a paid advertisement. These organic visits correlate to higher sales and lower costs, meaning increased profits.

3.3.3 Email creation

Having an email address for your customers is essential for any modern-day business, as it provides a direct line of communication with customers for any issues, difficulties, or inquiries they may have. In the case of TechSpresso, we sought out to create an email address for the business. Luckily, the email address techspressocoffee@gmail.com was available. Business emails usually end with @companyname.com, giving the address a more professional look. To resolve this issue, we had to link this email address to Professor Radzicki's Shopify account, changing the primary email address. By doing this, all email addresses sent to TechSpresso would automatically be forwarded to our Gmail account, and we would be able to respond to customers as needed. Next, we had to go into Shopify and set up other email addresses for our customers that would forward to this gmail account, such as info@techspresso.com. We also needed to register with Google Analytics as well, so that when TechSpresso is typed into a Google search our website will show up. This registration is tied to the same TechSpresso gmail account. In order to fully set this up, we needed to install the Google and YouTube app on Shopify to connect you should be able to connect to it on the app.

3.3.4 Legality

3.3.4.1 Trademarking

One of our primary legal concerns is trademark infringement. With our business name was selected, due diligence needed to be done to determine whether using that name will result in a cease-and-desist letter. The concept of branding is such that the business will utilize having a name that is unique to that specific business, and customers will relate that branding to the product that specific business sells. If a business has a name registered with the United States Patent and Trademark Office, or USPTO, that business has legal rights to exclusively use that name in the particular industry that the trademark is registered in. Trademarking can be an arena

of debate, and it is best to seek professional legal advice because of that fact. Even after hiring an intellectual property rights attorney, or IP lawyer, advice can vary from one lawyer to another.

With the name *Techspresso*, our team did a search on the USPTO website and discovered that no business had a registered trademark with that name. This indicates that, legally, one can use *Techspresso* without incurring the possibility of legal action being brought against the company. Michael Primavera had prior experience with hiring an IP lawyer, and decided it was best to follow the advice that had been given to him in the past: use the name if it does not show up in a search on USPTO. The reasoning was that if the name isn't legally registered, and it is advantageous to use the name, like the case of our SEO, then one should do so. Since creating a successful company is difficult, and it's best to use every advantage at one's disposal at the onset. If another company then decides that they want to challenge the use of the name by making a claim on it, then that means the company in question has been successful. The customer base can then be shifted to the new brand if the claim to the brand is legitimate and its usage becomes problematic.

To further complicate the matter, the legality of a trademark is debatable: a business can state that they have a legal claim to a name even if they do not have a legally registered trademark. If a business has been actively using a name to sell a product or service, even without the ownership of an official registered trademark, a legal argument can be made that they have exclusive rights to use that name in that particular industry. The industry aspect is critical, as two companies can have identical names with no legal conflict if they are in different industries.

For example, if a company starts out using the name Apple to sell fruit to customers, the Apple technology company comes to mind. Apple, the tech company, has no legal right to take the company selling fruit to court for trademark infringement. This is because the industry is vastly different, and Apple is not known for selling fruit. This means that a customer at the Apple fruit store won't mistakenly make a purchase thinking it was from the Apple computer company.

With no registered trademark for the name Techspresso in any industry and going on previous legal advice, our team had a green light to go ahead with the rebranding process. During our rebranding launch, however, Michael Primavera received unexpected legal advice from a lawyer with a Ph.D.: Dr. Larry Cogswell.

Larry Cogswell was attending the New England Sci-Tech Winter Field Day event, where our team was presenting our brand to the public for the first time. Dr. Cogswell was very interested in the company, as he felt it was for a good cause and that showed promise—so much so that he suggested renaming the company immediately.

Dr. Cogswell not only conducted a search on the USPTO website, but also an online search using Google. He discovered that inadvertently two of the other only two companies that were using the name *Techspresso* were both colleges, and one of them was selling coffee. That meant that there was a potential claim to the name *Techspresso* for the company that was selling coffee at a physical location in Florida. Dr. Cogswell's legal advice was in opposition to prior legal advice Michael Primavera had received, because Dr. Cogswell felt that, in his experience, it would be easier to resolve this potential issue sooner rather than later.

Our team made the immediate and collective decision to follow Dr. Cogswell's advice and change our name from Techspresso. This was an unfortunate setback to our rebranding process, but it was good that professional legal advice was received in the early stages of the company, and for free.

Techspresso did not have to end here, however. Michael Primavera reached out to the owner of Techspresso in Florida, seeing an opportunity to benefit both our team and the Florida business. A proposal was made to the owner, Dr. Jamiel Vadell, that the two businesses collaborate for mutual benefit: techspresso.tech could be marketed in the coffee shop in Florida, and the Florida store could be marketed internationally on the techspresso.tech website, opening up the possibility for instant franchise-marketing for the Florida store. Ultimately, this proposal was rejected, and the Techspresso name was put on the shelf.

3.3.4.2 Business Classification

The next legal concern was false advertising. Our team believed that part of the reason We Can Coffee did not make as many sales as anticipated was that it was not officially a non-profit; the website previously stated that one dollar would be donated to STEM per bag sold, yet there was a nearly 25% markup. Our team believed that if we would be unsure of what We Can Coffee was doing with the money without being an official non-profit business, then our target audience was unsure. Unbeknownst to customers, this markup was due to Temecula's high drop shipping cost. The solution to this was simple: restructure the company to a non-profit

organization, then market the site as a legitimate non-profit organization with full transparency. The key is that the company would have to be a registered non-profit, since to market it without being legally structured as such would result in legal action, on the basis of false advertising.

The idea of transitioning the company to be a non-profit like New England Sci-Tech had already been discussed, but our team believed that our business should stay separate from New England Sci-Tech as it grows, while still having them be our primary beneficiary. This is because of a statistic given by Professor Radzicki during one of our team meetings, during which he recalled bBig stating that We Can Coffee had the potential to eclipse ten million dollars a year in revenue; becoming a non-profit too quickly could limit our short-term scalability.

3.3.5 Current Name

In light of the previously mentioned legal advice (Section 3.3.4.1 Trademarking), our business has no name. This change occurred towards the very end of our project, and as a result, a majority of our methodology centers around the Techspresso name, which is now a placeholder until a new name is chosen.

3.4 Image Rebranding

3.4.1 Logo Creative Process

Our team did not have the collective knowledge to create a logo digitally for our business, nor were we willing to pay for an artist to create the logo. We instead opted to utilize AI to create the logo through prompting, and supplementing the AI with our team's editing skills. By using AI to generate a logo, our team would not have to worry about infringing on any intellectual property. The AI we used was LeonardoAI, a free image creation tool that uses generative AI to create images on demand.

Our team prompted the art engine to create over a hundred potential logos, using the same STEM and coffee themes present in our name creation process. The team then looked through these generated images, roughly 20 at a time, and pointed out images that caught our attention and offered a good starting point for our logo. Based on these selections, we generated even more variations of each idea, and once again pointed out our preferred images, as well as discussing how they could be perceived by our target audience. We finally settled on a little drowsy robot with three arms (Figure 3.1), which was then recreated by hand by Christian Varela

to show our desired logo (Figure 3.2). When that drawing was satisfactory, we prompted the engine to create the changes digitally.

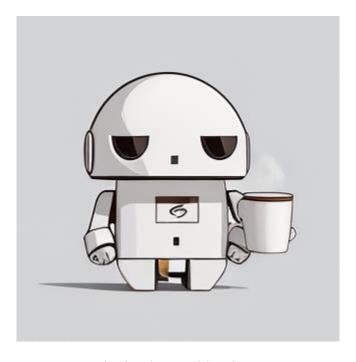


Figure 3.1 – An AI-generated robot logo, with "sleepy" eyes, a strange expression on the mouth, an orange spot next to its right leg, and a third arm beneath the one holding the mug, which served as our initial logo.



Figure 3.2 - A hand-recreation of our initial logo, specifying changes to be made to the eyes and mouth of the robot.

Our team agreed on this robot logo for severely reasons, the first reason being its "cuteness"; the robot was small, with rounded features that were non-threatening and easy to look at, and was similar to a child. We believed that this childlike appearance would appeal directly to parents, and the STEM nature would be considered a cute gimmick to draw in attention. Additionally, the robot's design was very simple and could be easily recreated by hand if needed, which we believed could possibly aid in spreading our brand name via word of mouth.

The editing process began by first flipping the eyes horizontally; the result was a robot with a happier expression, and a more pleasant appearance. He then flipped the mouth horizontally, and made the expression to be more of a smile. The final result being a logo with a tiny robot with a pleasant smile (Figure 3.3).

With this smiling version in hand, Michael Primavera removed the third arm and the orange spot near the robot's right leg. He then lightened the background and created a feathered circle around the robot to make the logo seamlessly blend in with our website background. He also created two other versions of our logo, shown in Figure 3.4, to celebrate Christmas and the New Year.

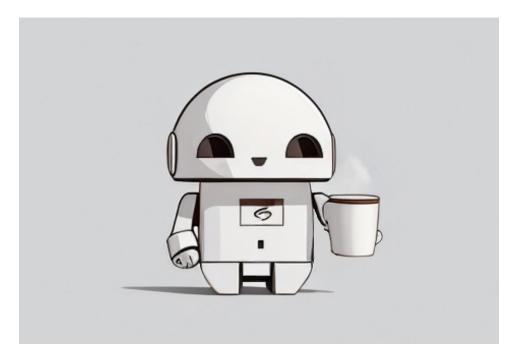


Figure 3.3 – An edited version of our initial logo designed to reflect the desired changes.

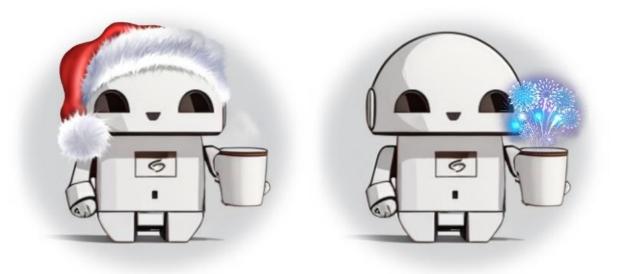


Figure 3.4 – The Christmas logo (left) and New Year logo (right), which both have a feathered circle for simplified website integration.

3.4.2 Font Creative Process

With a company name and logo had finalized, a font needed to be chosen for the name that would be on all logos. Michael Primavera began researching the topic and found a scholarly article on the subject². The study indicated that classic fonts did well to appeal to customers. Our team also drew on our collective knowledge of two nearby coffee companies: Starbucks and Dunkin' Donuts. Our team noticed that their websites and logos used clean and simple fonts, as opposed to more stylish and artistic fonts. With these facts considered, our team decided to use Helvetica regular font for our website, as it was symmetric and conservative with its style.

However, Michael Primavera suggested that for the business name, a bolder and more impactful font would be better suited. He suggested using a font called *Transrobotics* and making it brown like coffee (Figure 3.5). The angles present in this font gave off a robotic presence, as the name implied, and the brown evoked the coffee connections the business had. The team agreed this was a suitable font, and matched the business well.

Tech5presso.tech

Figure 3.5 – Text reading "TechSpresso.tech", written in the *Transrobotic* font in a coffee-bean color.

The *Transrobotic* font was free to use for non-profit reasons. However, Michael Kelly reached out to ShyFoundry, the company that created the font, to ensure there would be no trademarking issues with using this font. To date, the company has not responded to this email.

3.5 Website Rebranding

3.5.1 Visual Overhaul

When discussing how we wanted to go about redesigning the We Can Coffee website to fit the Techspresso image, our team elected Michael Primavera to be our webmaster based on his prior experience creating business websites. This webmaster role would go into the HTML code of the website and alter the code based on the team's desired changes, as well as handle all changes pertaining to the business website.

Michael Primavera first reviewed the existing color scheme and text fonts present on the We Can Coffee website, which was primarily white with cream-colored accents, and blue header text with brown body text. We agreed that this color scheme would work very well with our new Techspresso image, and the fonts were very pleasant already, and neither would need to be changed significantly in our rebranding process.

Secondly, Michael reviewed the existing website layout. Given the target audience of people between the ages of twenty to thirty-five years old, in combination with the fact that the company was selling from an e-commerce website, a critical logistic factor to be considered was the type of device that customers would primarily be using to make purchases: mobile devices. To better serve our customers, he aimed to make our website more mobile-friendly.

Initially the main page had a large amount of text describing the company, which filled up more than an entire mobile device screen with words, forcing a customer to actively either read or scroll further—this is a poor marketing strategy, as it poses a task that could act as a barrier to customers getting to the point of clicking to make a purchase. All of the superfluous text was reduced to simply:

"All Profits Go to NEST! Only \$1 markup on subscription drop ship cost, in hopes to generate revenue to fund future generations of scientists and engineers."

Another concern Michael had was the image of coffee on the main page that did not convey much at all about the differentiating aspects of the company. This image was replaced with an embedded video from New England Sci-Tech, with the thumbnail showing children at NEST making rockets while a narrator explains what New England Sci-Tech does. This alteration served the purpose of giving potential customers the ability to simply click on the video if they *wanted* to learn more, and they could sit back and relax to watch it.

Finally, the redundant information and low-quality images on the main page were removed, streamlining it. This thinning of excess created a website that was primed for mobile device usage.

3.5.1 Label Updating

With 800 product labels to be redesigned to match the rebrand, Michael Primavera implemented a strategic approach to minimize the total time spent altering. This process began with downloading all 800 original photos being used on Temecula's website, and renaming each image with its own stock keeping unit number, or SKU number; Temecula requires each uploaded image to have its own SKU number for redundancy prevention. Despite this process being an arduous task, our team agreed that this attention to detail would be crucial to running a reputable business.

Firstly, Michael created a template was created using Affinity Designer, a design software, to create labels for the coffee bags. This template made it quick and easy to edit the hundreds of labels that needed to be rebranded. Each downloaded image was cropped and pasted into the template that was sized with the new name. The new Techspresso logo would then be placed over the old We Can Coffee logo, and the Affinity Designer file could then be exported to the associated SKU folder. After altering these Affinity Designer file types to .JPEG file types, they were uploaded individually to Temecula's website using the appropriate SKU number. Temecula must approve new image uploads before using them to ensure they align with their business practices, and labels actively in the approval process were noted.

Secondly, Michael created a template for the images on the Techspresso website was created. These images would vary in product flavor, coffee type, and bag size, and required immense attention to detail; a longer product name would have different size and space demands on the image than a short product name, and this logic held for each possible combination of flavor, type, and size. One at a time, each image from the corresponding SKU file folder was imported to the template, resized, and layered to fit with the name of its product variant. Meticulously, these images were uploaded to Shopify to be used on the new website.

Finally, Michael deleted all of the We Can Coffee images from the Shopify hosting account. The file names of these images all began with "We Can Coffee", creating a disorganized backend of hundreds of images; sorting through these images for one specific image would take a considerable amount of time. Now that they were named by the Temecula product variant SKU number, all files had a completely unique name that was easy to find for future web developers that may either rebrand or alter available products on the website.

Michael organized these files and images into unique folders, with each folder being named after a labels' SKU number. This collection of folders was generated into a single .zip file and given to Professor Radzicki to store for future IQP teams. Through thorough organization and effort, which was critical to the project, future business processes were now streamlined and made easier to use.

3.6 Marketing

3.6.1 Pricing

In a perfectly competitive market, the only differentiating aspect is cost. Since the coffee industry has a monopolistic competition structure, Michael Primavera decided to reduce profits to the bare minimum. The idea was to lower the costs to be as competitive as possible: one dollar of profit per product sold.

This process wasn't as simple as adding one dollar to the cost from Temecula, because the website also offered a subscription discount to customers. Table 3.1 shows the subscription discount pricing structure offered to customers.

Table 3.1 – Details regarding the name of each of We Can Coffee's offered subscriptions, the length of the subscription, and the discount associated with that subscription plan.

Discount Name	Subscription Length	Discount			
Pay As You Go	Pay As You Go	5% Off			
HAM Coffee Club	12 Weeks	8% Off			
Prepaid Auto-Renew	1 Year	10% Off			

Michael Primavera then created the following formula for calculating pricing for all products, such that they have a maximum one-dollar markup when if a customer uses the largest discount of 10%.

$$Sale\ Price = rac{cost + 1}{1 - MaxDiscount\%}$$

Using this formula will yield the lowest price to sell the product for without a discount. If a customer uses a discount, there will be less profit; if a customer uses the maximum discount offered, the profit will be one dollar.

3.6.2 Winter Field Day

Now that Techspresso had a new name and face, our third business plan item centered around marketing. Having written off Google Ads, our team brainstormed potential ways to reach out directly to our customers in a more personable way than an email list; we wanted to gauge consumer interest directly by seeing our customers' faces as they interacted with our business. Serendipitously, we learned that New England Sci-Tech would be hosting their annual Winter Field Day in one month, and prepared to launch our public rebrand there.

With approval from Bob Phinney to attend the event, our team worked with Professor Radzicki to create a banner (Figure 3.6), posters, and business cards, which would be distributed at the event. The event ran from 11am to 3pm, and team members showed up in shifts throughout the day to help when they were able.



Figure 3.6 – The TechSpresso.tech booth set-up at New England Sci-Tech's Winter Field Day, featuring a banner with the Techspresso logo and name in the Transrobotic font.

3.6.2 Future Marketing Planning

3.6.2.1 Brainstorming List

When considering how to get customers excited about our brand, our team elected Laura Rodriguez to lead our marketing strategies beyond Winter Field Day, who had previously discussed marketing techniques she intended to use for her own future coffee business.

Through group meetings and interviews with Bob Phinney and Professor Radzicki, a comprehensive document was formulated containing possible marketing strategies for future use (Appendix D). These strategies utilized the popularity of subscription boxes, bundles, and potential collaborations with local artists.

While unable to implement these marketing strategies ourselves within the time allotted for our project, our team hopes that this document will serve as a springboard for future IQP teams to launch a successful marketing campaign off of.

3.6.2.2 Social Media

Social media accounts were created preemptively on multiple social media accounts, including Instagram and TikTok, to secure our brand name. In this way, we can create a starting point for future IQP groups to begin a social media campaign for the business.

3.6.3 Future Affiliate Planning

3.6.3.1 Target Affiliates

Affiliates are organizations or individuals that earn a commission on products sold through their promotion of a product or service. Our team wanted to reach out to as many affiliates as possible, and elected Christian Varela to head the task of bringing affiliates on board due to his experience in automating processes.

The first task was formulating an approach. Our team decided to make the job of affiliates as simple as possible to increase the likelihood of an agreement, since requiring potential affiliates to jump through hoops for an unknown and small brand would be unattractive. Keeping this in mind, our team decided to target YouTube content creators in the STEM field, who would require a few images and possibly a text blurb to effectively promote our product in their videos.

Determining STEM Youtubers to target first considered their subscriber counts; Youtubers with higher subscriber counts were likely to be receiving higher paying promotions from well established companies, and lower subscriber-count Youtubers would not have a sufficient enough audience to reach. Based on this assumption, we targeted Youtubers that had subscriber counts ranging from 300,000 to 1,000,000, which we considered a "fair" size given our charitable mission.

The field of STEM that these Youtubers were in was also taken into consideration, as we wanted to reach out to the most viewers possible; we believed viewers were more likely to watch a general science video than an engineering video, which is more niche. With limited availability of information regarding specific viewer counts on YouTube channels regarded as STEM, ChatGPT was consulted to provide estimated figures. These estimates are from ChatGPT's latest update, which was 2021, and were assumed to be slightly inflated due to COVID-19, where people had more time to watch YouTube and could possibly be watching science videos about COVID-19. ChatGPT provided a range of estimated viewership data, from low to high, so a table was created that displayed the low, high, and calculated average viewership for 2021 for each STEM branch (Table 3.2). From this data, a similar table was made to show the percentages of viewers concentrated in each STEM field (Table 3.3).

Table 3.2 – ChatGPT's estimated viewership of science, technology, engineering, and math videos on YouTube during the year 2021, with a calculated average viewership column and calculated total viewership row.

Estimated Views in 2021 (Billions)									
	Low Average High								
Science	100	150	200						
Tech	150	200	250						
Engineering	20	30	40						
Math	10	15	20						
Total	280	395	510						

Table 3.3 – Calculations created based on Table 3.2 that display the percentage distribution across ChatGPT's estimated viewership and our calculated average viewership.

Estimated STEM Viewer Distrubution								
	Low Average High							
Tech	54%	51%	49%					
Science	36%	38%	39%					
Engineering	7%	8%	8%					
Math	4%	4%	4%					

Technology clearly held the highest viewership percentage, followed by science, with both taking up a combined 89% of viewership on average. With this in mind, these two STEM fields were prioritized in our marketing strategy.

3.6.3.2 Automation

Aware that Technology and Science YouTubers are the target affiliates, a list of YouTubers to reach out to needed to be created. In order to create a list of suggested YouTubers, ChatGPT was prompted to produce a list of 100 Technology and Science Youtubers who had subscriber counts ranging from 300,000 to 1,000,000. Unsurprisingly, ChatGPT frequently returned names who had subscriber counts significantly higher than 1,000,000, or listed multiple channels with the same parent channel; an example of this failure is present in Figure 3.7.

🌀 CI

ChatGPT

Here's a list of STEM YouTubers from each category (science, technology, engineering, math) who had between 300,000 and 1,000,000 subscribers as of 2021, omitting similar names and excluding any with "PBS" in the title:

Science (Subscriber Count in 2021):

- 1. TheBackyardScientist (814,000)
- 2. TierZoo (896,000)
- 3. minutephysics (3Blue1Brown) (896,000)
- 4. PBS Space Time (884,000)
- 5. In a Nutshell Kurzgesagt (15.5 million)

Figure 3.7 – ChatGPT returning a comically erroneous result after being specifically prompted.

Despite numerous testing and prompting alterations, ChatGPT continued to produce results that violated the constraints of the prompt. Recognizing that this issue was unsolvable without help directly from the ChatGPT team and years of AI work, an automated program was created to sort through the recommendations that ChatGPT provided. This program was developed with AutoHotKey, a free and open-source custom scripting language for Microsoft Windows. This program worked with Social Blade, an American social media analytics website, to verify YouTubers recommended by ChatGPT that fit the specified criteria, and reject the others, making notes of all verified YouTubers.

The names generated by ChatGPT were placed into a text file, titled YoutuberNames.txt, which this program, named YouTubePuller, would read from. When run, YouTubePuller would open the Social Blade website and look up the first YouTuber name in the list. If an error message popped up saying that YouTuber no longer exists, the program attempts to search the next name in the list. If that YouTuber does exist, the program reads the date of their last video posted, the category of their channel (Science Technology, Math, or Engineering), and their subscriber count. If the YouTuber's last posted video date was within 2023 and their channel was considered to be "Tech" or "Education", it was saved and written to a separate text document, titled YoutuberData.txt.

Using the YoutuberData.txt file, which contained substantially less names than ChatGPT's list, each YouTuber page was visited, and notes were made regarding their primary

media type; some channels function more like narrated slide shows, while others have on-screen talent showcasing products or holding discussions. Noting the primary media type of these channels would allow our business to deliver bundles of promotional material that would integrate seamlessly with a YouTuber's current video creation style; we believed this approach would make a prospective affiliate more likely to get on board, since it does not interfere with their current operations, reducing the risk to their viewership. This information was placed into a Microsoft Access database for future ease of sorting (Appendix E).

Due to project timeline restrictions, the focus shifted away from the creation of an affiliate program and more heavily towards rebranding efforts and Winter Field Day preparations. As a result, the program and files associated have been sent to Professor Radzicki to preserve for future IQP teams.

4.0 Findings and Analysis

The findings and analysis for this project rely primarily on the rebranding launch at New England Sci-Tech's Winter Field Day, where our debut to the public began. Beyond this, a reflection on the project as a whole provides a deeper understanding as to why the project took the direction it did. This section aims to point out our successes and limitations, keeping both in mind as reference points for future recommendations.

New England Sci-Tech's Winter Field Day was our team's grand stage for gauging public interest in our business, and how well it would be received. We quickly learned that our robot mascot was a hit; visitors entering the building immediately looked at the banner of a smiling robot and smiled themselves, walking to the booth to ask about the project and Techspresso business. We determined through these interactions that our logo had the desired effect on customers, which was creating a sense of trustworthiness and familiarity that made it easy to approach and resonate with. Positive comments were also made on the witty and pun-like nature of the Techspresso name, which we believed would stand out in visitors' minds long after Winter Field Day ended.

Our rebranding launch appeared successful, but the critical issue of creating and maintaining sales still remained. The public interest at Winter Field Day was not indicative of visitors' willingness to purchase our product, or their willingness to continually purchase our product, which is critical to keeping the business running. Additionally, we received legal advice from Dr. Cogswell, detailed in *Section 3.3.4.1 Trademarking*, that resulted in an immediate removal of the Techspresso name to avoid legal action. Customers that were now familiar with our witty name would have outdated business cards and information, but would still be able to recognize our brand by our tiny little robot, which seemed more important to visitors.

Techspresso spent a majority of its lifetime in the planning phase, with focus heavily centered on creating systems and methods for creation and alteration. These systems and methods, along with the experience and knowledge gained during their creation, now supply future IQP teams with the tools to fix any potential issues that may arise. In the future, this project may benefit by continually conducting surveys and speaking directly to members of the public during the development of new ideas, similar to focus groups.

Finally, no sales were generated during the course of the project, with the exception of a single back-logged order prior to the rebranding. While having no sales is to be expected from the short lifetime of the business, we were unable to learn about customer demographics in practice. This meant we could not determine customer product preferences, shopping preferences, or spending habits, which would influence how we market our business and alter our business structure.

Overall, Techspresso showed high levels of promise in the eyes of the public, but at present lacks the marketing to generate sales, and must rename itself once more before heading back to market. Thankfully, much of the heavy lifting has been accomplished by our team to give the business the boost it needs to hop right back into the market and be a successful STEM charity.

5.0 Conclusions and Recommendations

5.1 Introduction

We Can Coffee Company was a struggling e-commerce store that needed significant time and effort to achieve its potential success. Because of this, most of the work put into this project was charting out an effective course of action for the business, and setting up structures for future growth. This conclusions and recommendations section reflects the wealth of knowledge and experience our team gathered over the course of our project, and is critical for future IQP teams to promote growth in this business going forward.

5.2 Work Cost Recommendations

We Can Coffee Company, as we received it, was and still is an extremely small business. It would take substantial financial investments to market it as effectively as possible, which our current team does not have, nor do we foresee future IQP teams having without generating sales.

To work within these limitations, we suggest that future IQP team members capitalize on any prior experiences, bringing their unique skillset to the forefront of the project. Future IQP teams will benefit greatly on the marketing front with prior experience in graphic design, social media management, or other connections to STEM businesses. This would allow future teams to pick up where we left our social media accounts and begin creating, as well as return to our label files and alter them quickly. Future IQP teams should also be willing to learn new skills, such as editing software or Excel management, to aid in artistic and managerial ventures. Future teams should also become comfortable with AI Tools like Leonardo AI to speed up artistic endeavors.

5.3 Product Cost Recommendations

The biggest issue that prevented We Can Coffee from succeeding, based on all the information our team has collected, is its product cost. The coffee industry as a whole can be classified as a monopolistic competition structure, and if one wants to succeed in a market like this, the only way to reliably do so is to have the lowest feasible price point. We believe that customers would understand paying a bit more for our coffee, as we are donating some proceeds to New England Sci-Tech. However, prices are significantly higher than both online and brick-and-mortar stores because of our supplier, Temecula, and their prices. We advise future IQP teams to find a vendor that is cheaper than Temecula. To begin this process, we recommend

searching for local companies near Worcester, and gradually branching out to larger corporations if local companies are unavailable. When finding a new supplier, we also believe it important to test the taste and quality of a new supplier's coffee, and gauge public interest before finalizing a change.

5.4 Time Recommendations

Given that this IQP typically lasts for three terms, or just over 21 weeks, future IQP teams should be aware that they may not achieve every goal they desire. This can be due to waiting on emails, approvals, or having a project scope that is too large. As a result, we recommend future teams plan out their goals for the project in the first term, execute their plans in the second term, and establish future systems and the report in the final term.

One of the tasks that must be completed outside the scope of this project is the altering of labels with the new brand name. To streamline this process, our team recommends that multiple members of a future team are familiar with the same editing software and communicate to make the same changes on each label, which would drastically reduce the time spent creating labels. This was where our team spent a lot of time, as we could not launch the website without appropriate labels being created.

Future teams should be familiar with ChatGPT, and especially familiar with its limitations as an AI tool. ChatGPT was able to save us considerable time in our brainstorming phases, and enabled us to spend more time on implementation rather than creation.

5.5 Legal Recommendations

Presently, there is still a surprising amount of legal work required to ensure this business does not infringe on any previously established business. Future IQP teams will need to be aware of legal issues when they come up with a new name for the company, and should research both on USPTO and common search engines meticulously, prior to creating any new logos. When creating a name for the business, we recommend keeping the name short, memorable, and pronounceable.

It is important to note that the current project is not registered as non-profit, and cannot be advertised as such without incurring legal penalties. Should future teams wish to market this business as a non-profit, they will need to undergo immense research and possible legal counsel to determine the appropriate course of action in the eyes of the law.

Dr. Cogswell has kindly made himself available as legal counsel for future IQP teams, and should be consulted as needed.

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Appendices

Appendix A – Assessment of We Can Coffee's Product Potential

ASSESSMENT OF WECAN "PRODUCT" POTENTIAL **DECEMBER 30, 2022** DESCRIPTION GOOD BAD Cost of legal organization, risk to personal assets, product potential liabilities, reputation RISK CUSTOMER SERVICE Expected time and cost associated with managing questions, customization, billing and refunds INTENSITY COMPETITION Existing solutions in market or substitutes Potential defensible position, e.g. brand strength, unique competitive BARRIERS TO ENTRY advantage BRANDING Unique, credible, relevant POTENTIAL Total size, discreet market segmentation, reachable through ads / marketing. US vs. global. Can you find them, access? Follow-on sales potential? Known targets MARKET POTENTIAL / DYNAMICS and decision-making process? No evangelizing. REPEATABLE Can solution be sold to multiple parties? Exclusive licensing expectations? Is there an edge to getting to a new market first? Can you build a brand or capture market share? FIRST MOVER REVENUE Gross, net, CPC, returns cost, etc. TESTABLE Low cost to test, A/B testing for UX, etc. Impact on brand, associated partners, nothing harmful or salacious REPUTATION Is it "productizable"?, e.g. consulting, etc. Products available from reputable vendors, verified qualities, good supply chain, partners required? Risks?

Figure A-1 – Stu Hilger's product potential chart, completed using his professional opinion on We Can Coffee's product potential

Appendix B – Business Plan

Business Plan

Value Proposition(MK): This is what a company offers to its customers or clients to meet their needs or solve their problems. It defines the product or service and its unique features or benefits.

 We offer high-value coffee delivered straight to your doorstep, coming in ? different flavors/varieties, and __% of our profits go towards STEM Education for kids

Customer Segments (CV):

Specific Groups of Customers

- STEM Interested
- HAM Radio Operators

Target Market

- College STEM majors
- Online shoppers

Target Demographic

- Coffee Drinkers
- Online Shoppers

Pain Points

- Pricing
- Delivery times
 - Customers acclimated to Amazon delivery times
- Shopify and website conflicts

Channels(CV):

Sales Channels

- Website (Direct)
 - https://wecancoffeecompany.com/
- Affiliates (Indirect)

Marketing (types)

- Email
- Affiliates

Figure B-1 – A screenshot of a small portion of a document containing our team's business plan.

Appendix C – We Can Coffee HAM Radio Market Analysis

VECAN TOTAL H	AM RA	DIO MARKET POT	ENTIA	L MODEL DR	AFT (St	u Hilger)	WECAN TOTA	WECAN TOTAL HAM RADIO MARKET POTENTIAL MODEL DRAFT (New Estimates)						
							Average Annual Sale per Customer	\$	150.00	1		Yes WECC Club Ann. Sale per Customer		26.071428
							Average Order Price	\$	22.00			YES WECC Club Avg. Bi-weekly sale	S	22.0
												Avg Annual Sale per Club Member	\$	544.8
7	750,000											Initial Estimate	\$	150.0
60%		450,000					Total Ham Market	75	8,741					
		,					Coffee Drinking Americans		75%		569,055			
80%				360,000			Home Brewers		56%		375,576			
10%				36,000			Online Shoppers		80%		300,460			
2%				720		0.096%	Targeted Reachable Market - Multiple Views		10%		30,046			
							Gross Lured Captured Market (Uptake)		2%		600	0.0791%		
							Total Assumed Customers		600					
	150.00						Average Annual Sale	\$	150.00					
			S	108,000			Total Annual Sales			\$	90,000.00			
			S	1.97			Sales Per Day				2			
	40						Average Order	\$	22.00					
50%			S	54.000			Raw Product Cost		50%	ς.	(45,000.00)			
			S	54,000			Subtotal		3070	\$	45,000.00			
							Cost per Mille (CPM)		\$8		(\$0.008)			
\$8		\$ 0.00800					Click-through Rate (CTR)		2%		(\$0.40)			
2%		\$ 0.400					Percent Purchase		2%		(\$20.00)			
2%		\$ 20					Subtotal (Year 1)			S	(12,000.00)			
			S	14,400			Ongoing Communications / Marketing / Customer Supporrt			S	(6,000.00)			
			S	7,200			Donations / Charitable / Affiliates / Partners		30%	\$	(1,800.00)			
30%			S	2,160			Net			\$	25,200.00			
			S	30,240			People, Overhead, MISC		0.75	\$	(18,900.00)			
75%		\$ 22,680					NET NET			\$	6,300.00			
			\$	7,560										

Figure C-1 – A screenshot of a Microsoft Excel file containing both Stu Hilger's projections and our own projections for breaking into the HAM Radio market.

Appendix D – Compiled List of Generated Names

Steam coffee

Systems go coffee

Brewbot coffee

Lab Brews

Quantum Espresso

Caffeine Catalysts

Techpresso

Java Geeks

Science Sips

Code & Coffee

Electron Espresso

Math & Mocha

Engineering Elixirs

Robot Roasts

Chemi-ccino

Brewed Bytes

Tech Tasters

Data Driven Decaf

Quantum Quaff

Engineering Energy

STEMbrew

Mathematica Mugs

Photon Pours

Mocha Mechanics

Figure D-1 – A small portion of the names generated by ChatGPT when prompted to create a name for a STEM charity coffee company.

Appendix E – Microsoft Access Database for Possible Affiliates

∠ ID ▽	Account Nar ▽	Subscribers ♥	Branch	∇	Primary Mec ▽	Desk Shots ▽
1	ScienceMax	389,000	Science		Live action, cor	
3	tttechnology	557,000	Technology			
4	Engineeringwit	77,500	Engineering			
5	MathwithMrJ	849,000	Math			
6	fpt.	441,000	Technology			
7	robbraxmanted	402,000	Technology			
8	ThisIsTechToda	317,000	Technology			
9	Scienceabc	346,000	Science			
10	JaDroppingScie	1,100,000	Science			
11	Chris Titus Tech	528,000	Technology			

Figure E-1-A screenshot of the Microsoft Access Database containing manually entered information regarding each possible affiliate's subscriber count, branch of STEM they are aligned with, primary video medium, and whether or not they utilize desk shots in their videos.