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**Valuing Sustainable Change: a case study of the integration
of sustainable business practices in a small-scale juice bar**

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Abstract

While sustainable business development is one viable approach for mitigating environmental crises, there are many questions of how realistic this approach is and whether or not sustainable development is a substantial enough solution. One of the obstacles that the success of sustainable development faces is getting businesses to adopt and invest in sustainable practices. This paper examines how businesses can become more sustainable and how the effect of these changes can be measured. A comparative study of the existing certifications surrounding sustainable practices in businesses highlights the variety between the certifications, the intensity of the certification processes, and other details such as associated fees. The knowledge gained from our review of certification systems was applied to the case study of a small-scale juice bar, The Juice Laundry, which has taken steps towards integrating sustainable practices into their business model. Investigating the extent of The Juice Laundry's sustainable choices, as well as the way that they communicate their values and practices to consumers, revealed that the company is very transparent about their business model but does not typically produce data that explains the positive impact of their practices. Further research is warranted on how sustainable business endeavors collect and distribute information to consumers.

Introduction

The Industrial Revolution sparked a transition away from hand labor to human built machines; a turn away from the land towards business development on a large scale. Machines could complete tasks much more efficiently than humans allowing for economic growth at unprecedented rates. Along with this transition came the loss of connection between industry and the environment. Now, in the face of climate change, humans are forced to look back on this decision to pursue economic growth with little regard for environmental costs and question the relationship between sustainability and business. Environmental consideration is often understood to be in conflict with economic growth, yet there has recently been a surge in sustainably and socially conscious businesses. This research explores the relationship between sustainability and businesses. Furthermore, we interrogate what traditional business frameworks have neglected in terms of externalized environmental costs by examining recently developed sustainable business frameworks and methods of sustainable measurement.

This research project includes a sustainable business case study. The Juice Laundry was founded in Charlottesville, Virginia in 2013 and has since expanded from its original location to two other locations within Charlottesville as well as Washington D.C. and Richmond, Virginia. The Juice Laundry was created with a mission to inspire healthy, organic, powerful change. The Juice Laundry also values the transparency of their products and methods.

As the need for both economic development and environmental action continues to grow, it raises the important question of whether or not sustainable business practices present feasible and meaningful solutions. This paper investigates the relationship between businesses and sustainability through systematic analysis of economic, environmental, and social features of certification systems. Through a case study of The Juice Laundry, this research examines an individual business's sustainable practices in relation to the company's overall development. Using data provided by the business, we review the current practices and examine their impact; we also explore the way that The Juice Laundry communicates their sustainability to consumers. To situate this case study in a broader analysis of sustainable development, we also conduct a

comparative study of existing sustainability certifications in order to identify areas where these certifications may fall short or where The Juice Laundry can continue to improve.

The literature review summarizes prominent theories such as Natural Capitalism and the Triple Bottom Line, as well as critiques of the green consumerism these theories support. Along with these theories, this report explains different economic frameworks for thinking about sustainable business and provides an analysis of more tangible concepts and tools for measuring sustainability, such as *doughnut economics* and *true earnings analysis*. Moving to the case study of The Juice Laundry, the business review is broken down into three main parts: Certifications, Communication through Social Media, and Environmental Impact Transparency. We analyze these three components of The Juice Laundry and suggest implications of these sustainable business practices at a larger scale.

Literature Review

In 1987, the World Commission on Environment and Development published a report titled *Our Common Future* which described the environmental problems stemming from the tension between poverty in the global south and consumption and production patterns in the global north. In this report, the commission also defined the term sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (“Our Common Future” 1987). While this definition of sustainable development has become an oft-accepted definition, discourses also challenge the meaning of the term and how to improve it. Julie Sze et al. (2018) argues that sustainable development, under this definition, is both radical, due to the suggestion that there may be environmental limits to economic growth, and reformist, as it assumes capitalism as the existing economic system. In addition to Sze et al.’s argument, one of the most popular critiques of sustainable development is that the definition is too vague and creates dangerous opportunities for reinterpretation, which has created contradictory policies and rhetoric (Hove 2004, 2). As critiques of sustainable development emerge, efforts also build on the definition, constructing methods to encourage sustainable development on a local, national, and global scale.

In 2015, all United Nations member states adopted the 2030 agenda for sustainable development which provides a blueprint for peace and prosperity for people and the planet (“Sustainable Development Goals: Knowledge Platform” n.d.). This agenda consists of 17 goals that are economically, environmentally, and socially focused (“Sustainable Development Goals: Knowledge Platform” n.d.). The goals serve to create a global partnership towards reducing poverty and inequality, while spurring economic growth and protecting the earth’s resources (“Sustainable Development Goals: Knowledge Platform” n.d.). Not only do these goals give a more specific interpretation of sustainable development, they also provide a framework for countries to establish widely scoped policies. While the meaning of sustainable development has evolved and has the ability to encompass a large spectrum of social, economic, and environmental issues, the idea still assumes a capitalist structure and the debate continues over whether or not a capitalist society can be a sustainable society (Sze 2018).

While there are arguments surrounding environmentalism that claim that capitalism is not an adequate system, there are others who do believe that society can shift towards a capitalistic system that is sustainable and just. One theory that supports the latter argument is the Natural Capitalism theory, which was described by Paul Hawken, Lovins, and Lovins in *Natural Capitalism: Creating the Next Industrial Revolution* (2000). The idea behind natural capitalism is that humans can create and exist in a capitalistic society that does not endanger the future. The main argument is that, if natural capital, such as ecosystems services and natural resources, is properly valued, then companies may continue to operate sustainably in a free market. This theory fits in neatly with sustainable development and suggests that shifting towards a society that balances economic growth with environmental limits is a viable solution to issues such as climate change.

Prominent critiques of the Natural Capitalism theory raise pressing questions about the potentially oxymoronic nature of the idea of sustainable consumerism, as well as how effective sustainable development can be even if these practices are widely accepted and implemented. Looking at consumer habits and motives on an individual scale in *Shopping Our Way to Safety: How We Changed from Protecting the Environment to Protecting Ourselves*, Andrew Szasz (2007) introduces concepts such as the *inverted quarantine* and *political anesthesia*. Szasz

(2007) argues that in efforts to protect one's self and loved ones from increased environmental toxicity, those who can afford it have begun to put up barriers around themselves to combat this assault on the body, which he calls the inverted quarantine. A quarantine is when infected individuals are separated from the rest of a community, assuming only the individuals are not well, and the surrounding environment is healthy. Inverting this idea means the surrounding environment is infected and requires self-protection. Szasz (2007) writes of how this presence of inverted quarantine in consumerism stems from people's genuine desire to protect their families yet is also a root cause for political anesthesia in the environmental movement. If people feel that they are able to adequately protect themselves from environmental toxicity, they are less incentivized to put pressure on institutions to make change. While Natural Capitalism views sustainable consumerism as a catalyst for the integration of sustainability in business models, Szasz argues that sustainable consumerism has taken the form of those who are wealthy enough buying products that are supposed to reduce their own environmental risk. In this interpretation of Natural Capitalism, sustainable consumerism is used as a protector of the wealthy and does not actually enact systemic change or get at the root cause of the problem.

Looking specifically at "Consumption and Climate Change," Ehrhardt-Martinez et al. (2015) also discuss a gap in consumer actions and beliefs. Although Ehrhardt-Martinez et al. focus more specifically on household consumption, this research details concepts relevant to business development including Veblenian consumption dynamics and inconspicuous versus conspicuous consumption. This theory, which directly connects consumer habits and social status, could explain this gap: "consumers may simultaneously hold strong pro-environmentalism attitudes and live high-impact lifestyles because visible consumption is vital to their social position and core identity" (Ehrhardt-Martinez et al. 2015, 100). Additionally, Ehrhardt-Martinez et al. explain how sustainable amenities for households have been stigmatized as upper-class, which has increased the inaccessibility of sustainable consumerism. While this argument remains within the context of household consumption, household lifestyle parallels other green consumerism practices and goods. Furthermore, this research presents differences between conspicuous and inconspicuous consumption. Conspicuous consumption includes practices that are meant to flaunt one's wealth and demonstrate how one is able to keep up with

their peers, an attempt to maintain or gain social capital. Inconspicuous consumption includes the mundane, daily practices that relate to comfort, cleanliness, and convenience (Shove and Warde 1998). Ehrhardt-Martinez et al. identify these as the practices people are usually not willing to change even for the sake of sustainability. In other words, consumers support environmentalism when it impacts conspicuous practices because sustainability has become a point of luxury in consumerism, thereby increasing consumers' social capital without impacting the convenience of their inconspicuous practices. Ehrhardt-Martinez et al. (2015) conclude that an indisputable relationship exists between consumption and climate change, calling for the need to further research and understand the complicated nature of consumer habits by taking into account social context, status, identity, and lifestyles.

However, Hawken is not naïve to this paradox presented by green consumerism. Forbes and Jermier in *The New Corporate Environmentalism and The Ecology of Commerce* (2010), pose the pertinent question: how far can we go with green capitalism? There is disagreement within the literature on how much consumer choice impacts business actions. Within the Natural Capitalism theory, however, Hawken identifies consumer choice as a key driving force along with businesses' internal need to shift away from non-renewable resources. Looking at businesses more specifically and less at consumer choices, Hawken states, "it is time for business to leapfrog the debate and take the initiative, not in self-serving and gratuitous pronouncements and awards, but in a genuinely open process of dialogue, collaboration, reflection, and redesign" (Hawken in Forbes and Jermier 2010, 477). However, there remains concern that entrusting businesses to enact change for the greater good results in corporate greenwashing, which Hawken defines as "meaningless eco-speak". There is always the danger that corporations will self-advertise ceremonial sustainable practices that do not actually have a significant impact on reducing environmental footprints. Hawken also identifies "clean up" practices as falsely sustainable, attempting to debunk the myth that business practices can maintain the status-quo of pollutant-heavy production so long as technological innovations improve our ability to retroactively remove this waste from the environment. Ultimately, communication to customers will be one factor to improve sustainability by businesses.

In the midst of the debate over whether or not green capitalism will be enough, it may be necessary to change the lens with which green capitalism is being interpreted and implemented. Historically, businesses that have adopted more sustainable business practices have focused on achieving eco-efficiency, a term coined by the original 50 members of the World Business Council for Sustainability in 1992 (Schmidheiny and Zorraquin 1996, 17). Livio DeSimone and Frank Popoff (1997, 89) further describe eco-efficiency as being reached “by the delivery of competitively priced goods and services that satisfy human needs and bring quality of life, while progressively reducing environmental impacts and resource intensity throughout the life cycle, to a level at least in line with the Earth’s carrying capacity”. There are several factors that should be taken into account while evaluating eco-efficiency including material intensity, energy, toxic dispersion, recyclability, resources, durability, and service intensity (DeSimone and Popoff 1997, 85). However, eco-efficiency may not be enough to achieve the amount of change that is needed, as it assumes a one-way, linear flow of materials through systems and is simply focused on reducing damages. Instead, the term eco-effectiveness has been proposed as the target that businesses should strive for when evaluating their business practices (**Figure 1**). Coined by Michael Braungart and William McDonough (2002), eco-effectiveness shifts away from reducing negative impacts towards creating positive impacts by creating cyclical metabolism for products and maximizing the efficiency of production cycles. While it would be beneficial if all businesses could shift towards eco-effective models that create a positive environmental impact, it is difficult to say if businesses will have enough incentive to make these changes.

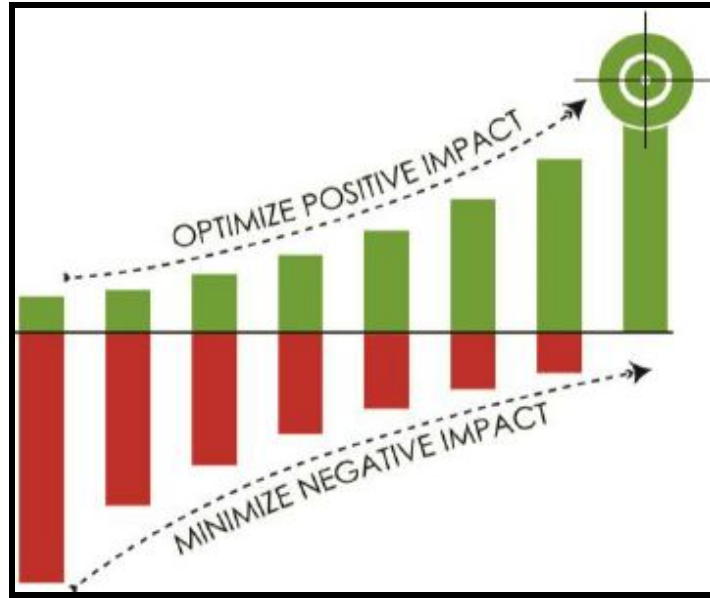


Figure 1. Illustration of the difference between eco-effective which has a target of optimizing positive impact and eco-efficient which focuses on minimizing the negative impact. From: https://www.researchgate.net/figure/Eco-effective-vs-eco-efficient-edited-from-5_fig1_2771751

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The primary reason why businesses may not be willing to make this shift relates to assumptions about the financial market and how it operates (Schmidheiny and Zorraquin 1996, 4). Schmidheiny and Zorraquin define seven key assumptions that describe how financial markets might discourage sustainable development:

- Sustainable development requires investments with long payback. Financial markets seek short-term payback.
- Efforts towards eco-efficiency by a company often reduce present earnings in favor of future potentials. Financial markets favor companies with high present earnings over those with future potentials.
- Given low resource prices and the ability of businesses to keep costs for much environmental damage “external” to their own balance sheets, the profitability of becoming eco-efficient is reduced. Eco-efficient companies are often not preferred by financial markets.
- Sustainable development requires massive investments in developing countries. Financial markets put a high risk premium on investing in developing countries.
- High taxes on employment encourage labor productivity, therefore enhancing unemployment, while low resource prices discourage resource efficiency.

- Accounting and reporting systems do not adequately convey potential environmental risks or opportunities. Financial markets are compelled to make decisions based on biased information.
- Sustainable development is concerned with the importance of the future. Financial markets discount the future heavily and routinely. (1996)

While these assumptions aren't necessarily proven to be true, they are in operation and serve as a barrier for the implementation of more sustainable practices (Schmidheiny and Zorraquin 1996, 8). This leads to questions of whether or not a sustainable development would be operable under the current, profit-driven, system.

There are several economic theories and models which still value a competitive, free market, and place a larger emphasis on the environment than the classic capitalistic model does. One of such theories is Kate Raworth's Doughnut Economics framework (2017) , which was designed to meet the needs of all within the means of the planet. Doughnut economics reframes the goals of the economy, while refocusing on humanity's long term goals. Drawing these goals out generates a pair of concentric rings (**Figure 2**).

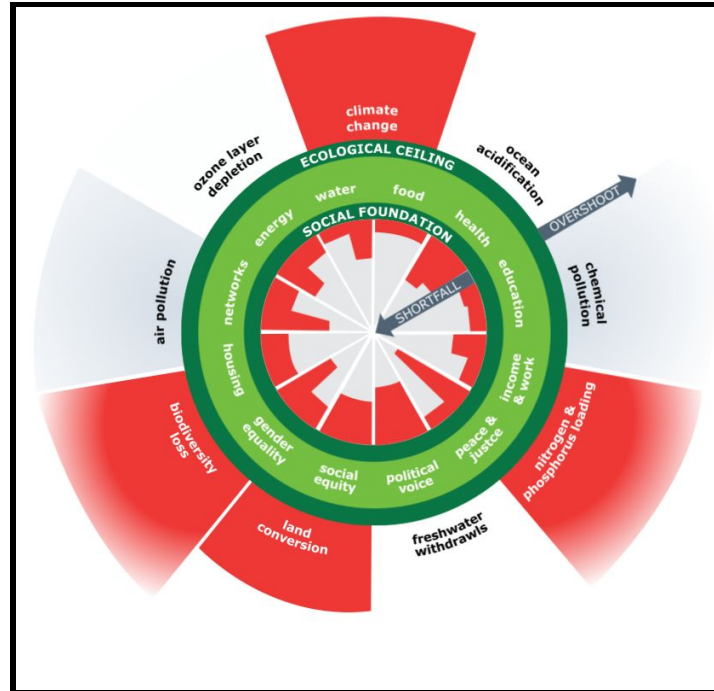


Figure 2. The Doughnut: illustrates the space in which we can meet the needs of all within the means of the planet by focusing on humanity's long term goals, rather than economic growth. From: <https://www.kateraworth.com/doughnut/>

The outer ring acts as an ecological ceiling, above which lies critical degradation, and the inner ring represents social foundation, below which lies critical human deprivations (Raworth 2017, 9). This will require economists and businesses to reevaluate their priorities and think differently. In addition to proposing a new economic framework, Raworth also describes seven steps that will be necessary to achieve a 21st century, climate change ready economic mindset:

1. Change the goal: from GDP to the Doughnut
2. See the picture: From self contained market to embedded economy
3. Nurture Human Nature: from rational economic man to social adaptable humans
4. Get savvy with systems: from mechanical equilibrium to dynamic complexity
5. Design to distribute: from 'growth will even it up again' to distributive by design
6. Create to regenerate: form 'growth will clean it up again' to regenerative by design
7. Be agnostic about growth: from growth addicted to growth agnostic

If these steps were taken and businesses became less focused on growth and profit, then the assumptions described by Schmidheiny and Zorraquin (1996) may not act as large barriers to sustainable development.

The ways in which sustainability is measured has also produced challenges for businesses and consumers. Since sustainability is an openly defined term, there are many different methods for valuing this concept monetarily. There is no easy way to value environmental services, which has led to businesses having a difficult time demonstrating their sustainability performance (Szekely and Dossa 2017, 110). Meanwhile, companies and corporations that have not implemented real changes have been successful in greenwashing their practices (Szekely and Dossa 2017, 110). As a result, several frameworks and tools have been developed which attempt to specify how sustainability can be measured within a business. One of which is the triple bottom line framework. The bottom line refers to the traditional and most simplistic picture of a company's growth, taking into consideration only profits and losses. The triple bottom line attempts to expand this to a more holistic view that accounts for people, planet, and profit. This three-pronged definition has been described in at least three distinct ways. First, as a three-legged stool in which the three components are separate yet equally valued entities (Willard 2012, 9). Second, as three concentric circles with human economy inside human society inside environment. Thirdly, as a venn diagram where sustainability is defined by overlaps between meeting economic, environmental, and social goals. Regardless of the approach, these three features give more depth to a profit-loss analysis; however, they still cover a broad range of topics and do not resolve the complexities of valuing sustainable development. A more specific tool within the triple bottom line framework is the positive deviance continuum (Szekely and Dossa 2017, 117). This scale incorporates organization practices, ethics, and integrity, placing them on a scale from negative deviance to normal to positive deviance. Placing socially responsible organizational practices at the normal middle ground of the spectrum and sustainable practice at the positive side, the continuum distinguishes sustainable practices from *do no harm* activities. Szekely and Dossa (2017) also present ways to visualize the triple bottom line breakdown within the traditional revenue-cost analysis.

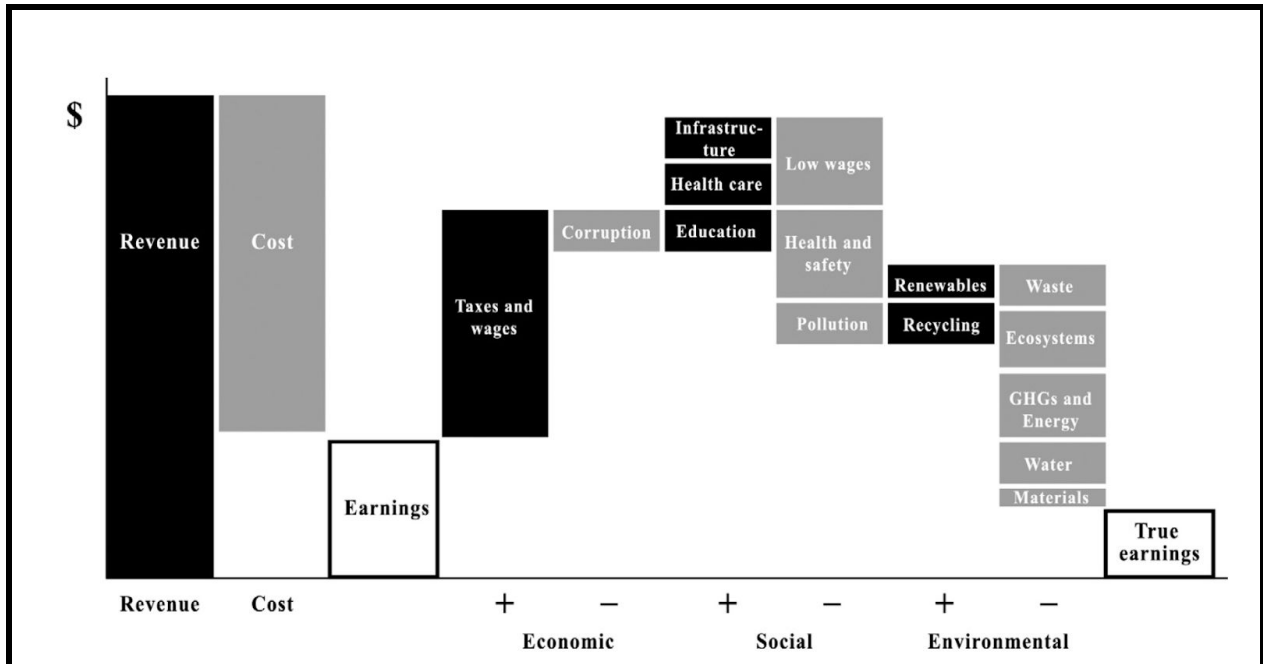


Figure 3. True Earnings Analysis: This graph demonstrates one method for visualizing the breakdown of economic, social, and environmental costs and benefits in comparison to traditional cost revenue analysis. From: *Beyond the Triple Bottom Line: Eight Steps toward a Sustainable Business Model* (Szekely and Dossa 2017).

As shown in Figure 3, triple bottom line analysis can be deepened to communicate how the revenue and cost of a business relate to the three different components, displayed as economic, social, and environmental. Notably, this figure makes the distinction between earnings and true earnings, highlighting how triple bottom line analysis accounts for externalized and hidden costs that do not have a place in the traditional profit margin breakdown.

While each of these frameworks have been used to evaluate sustainability within a company, each one has several gaps that could affect the conclusions regarding sustainable business. For this reason, it is important to consider how businesses communicate and advertise their sustainability. Putting aside the argument that green consumerism is oxymoronic, the concept presents other challenges such as greenwashing. The ambiguity that comes with the term

sustainability has opened up a loophole for businesses to self-advertise as sustainable in misleading ways. Due to this confusion, consumers that are looking to make green choices must be aware of businesses greenwashing their practices. However, even when businesses are attempting to present their sustainable efforts in a genuine way, this can be a daunting task. The many different frameworks and tools for measuring and presenting sustainability demonstrate a need for clarity within both business and consumer understanding of what it means for a company to be sustainable.

Methods

Overall Analysis of The Juice Laundry

In order to explore sustainable business practices in a tangible way, we conducted a case study of a small sustainable business, The Juice Laundry. Using existing knowledge of the product being sold, competitor models, and a basic understanding of traditional business frameworks, six main branches of the The Juice Laundry were identified: Ingredients, Waste, Site Efficiency, Community Involvement, Merchandise, and Off-Site Vendors. Discussing each of these aspects of the business with the owner, we were able to gain insight into how sustainability fits into each of these areas, and pinpoint three topics to explore further: certifications, communication through social media, and environmental impact transparency.

Certifications

Business certifications serve as labels that separate businesses into different categories. These certifications can operate as methods of measuring sustainability internally as well as presenting sustainability to customers. Through a review of sustainability certifications, this research aims to understand what certifications already exist, where they overlap, where they potentially disagree, and room for improvement or development of new certifications.

In order to better understand the breadth of what already exists, we compiled a list of many different sustainability certifications. For our final analysis, we chose to focus on five certifications based on their overall impact and relevance to The Juice Laundry's model. The five

certifications are: B Corporation, Cradle to Cradle, USDA Organic, TRUE, and AASHE Stars. After sifting through these certifications in more detail, seven main themes or categories were identified to compare across the different certifications: Mission, Impact, Target, Accessibility, Holistic, Scale or Label, and Criteria. Each theme addresses a more specific question about the criteria.

Mission: What is the main goal of this certification?

Impact: How widespread is this certification?

Target: Who is the intended audience?

Accessibility: What is the price of utilization?

Holistic: Does it examine one aspect of sustainability or provide an overview?

Scale or Label: Is it a label that is achieved by reaching certain criteria or a score?

Criteria: What categories do they look at?

These themes were used to examine how these five certifications relate to each other, how they may be useful to The Juice Laundry, as well as how effective they are at measuring and communicating sustainability.

Communication through Social Media

To examine the different ways that companies may communicate with their customers and the messages they prioritize, we will utilize The Juice Laundry as a case study and analyze their social media posts. Specifically, we will look at all of The Juice Laundry's Instagram posts between January 2019 and November 2019. We chose to focus on The Juice Laundry's Instagram presence, as opposed to their other social media sites, because Mike, the founder of The Juice Laundry, voiced this was their preferred platform.

To analyze the posts, we downloaded the photos and captions in the selected timeframe. Then, the posts were uploaded as one document to NVivo Pro 12, a qualitative data analysis software package. Each of the posts was then examined in this program, to identify the frequency of key themes in the posts.

Environmental Impact Transparency

In an effort to increase transparency with customers, The Juice Laundry began displaying in-store signs that break down the cost of their average smoothie using six categories: Ingredients, Labor, Rent, Packaging, Discounts, Miscellaneous. This transparent signage not only dispels myths that their products are more expensive than competitors in order to increase their profit margin, but also educates consumers about different choices the business makes and how this directly correlates to costs. It lets customers know where their money is going.

Using this sign as inspiration, we brainstormed how a parallel sign could be developed that would communicate to customers the business's sustainability initiatives. Replacing transparent cost with transparent environmental impact, we identified five parallel categories: Ingredients, Transportation, Packaging, Sale of Product, and Waste. These categories chronologically follow the creation of a smoothie from the farm, to the customer, to disposal. In our research we aimed to identify what aspects of sustainability The Juice Laundry could highlight in each step of a smoothie's life. The goal is to shed light on which areas of sustainability The Juice Laundry could most improve upon.

Results

Certifications

The first is the B Corporation ("B Corp") certification. The main idea behind B Corp certification is to create a "B" economy in which companies compete to be the best for the world, the people living in it, and the natural environment, by balancing purpose and profit ("Certified B Corporation" n.d). The B Corp certification has grown to be one of the most popular sustainability certifications, with 3,086 participating companies which are located in 71 different countries ("Certified B Corporation" n.d). B Corp certification is also unique because it assesses the overall impact of a company, not just a product or service ("Certified B Corporation" n.d). In order to assess the overall impact of the company, there is a B assessment which each candidate company completes that asks various questions related to the governance of the company, workers, community impact, and environmental impact ("Certified B Corporation" n.d). Upon completing the assessment, each company receives a score. If the score is over 80, the company is eligible to receive B Corp Certification ("Certified B Corporation" n.d). In addition to the

baseline score that needs to be achieved, B Corp also emphasizes stakeholder engagement, to protect the mission of the company, by integrating a legal component for this in the certification standards (“Certified B Corporation” n.d). While the B Corp certification evaluates sustainability from a variety of perspectives and offers an approach to measuring sustainability, it also lacks accessibility due to the associated fees. This is a recurring issue when it comes to certifications for businesses. However, B Corp does adjust their associated annual fees with the annual sales for the company in question, which does help this solution become more feasible than if a small business was expected to pay the same as a large corporation (“Certified B Corporation n.d).

In addition to B Corp, another certification that attempts to measure sustainability is the Cradle to Cradle (“C2C”) certification. The C2C certification was developed by Michael Braungart and William McDonough, who also coined the term eco-effective, and is based off of the arguments in their book *Cradle to Cradle: Remaking the Way We Make Things* (2002). The C2C certification highlights eco-effectiveness and supports products that have a positive impact on people and the planet (“Cradle to Cradle Products Innovation Institute” n.d). The specific requirements that are associated with the certification were developed through a stakeholder engagement process with input from technical experts, market leaders and the public (“Cradle to Cradle Products Innovation Institute” n.d). As a result of this process, the products are assessed for environmental and social performance across five critical sustainability categories: material health/material reuse, renewable energy, carbon management, water stewardship, and social fairness (“Cradle to Cradle Products Innovation Institute” n.d). These categories were designed with rigorous parameters which provide a framework for designing and making products with measurable progress towards UN Sustainable Development goals such as natural resource stewardship, social fairness, and consumption (“Cradle to Cradle Product Innovation Institute” n.d). Each of these categories is then awarded an achievement level (basic, bronze, gold, silver, platinum) and the lowest category achievement level will represent the overall certification for the product (“Cradle to Cradle Products Innovation Institution” n.d). For example, if a company is awarded a gold achievement level in the renewable energy category but a basic achievement level in carbon management, then the product will only receive an overall certification level of basic. This system is effective in minimizing green washing as it prevents products that excel in

one category but completely ignore another from being awarded. Similarly to the B Corp certification, the C2C certification has associated fees, which can act as a barrier for some products to get certified (“Cradle to Cradle Innovation Institute”).

The next certification focuses on sustainable food, specifically organic farming practices. The United States Department of Agriculture (USDA) developed the “Organic” label with the mission to support organic food integrity through certification and clear labeling of farms and products (“Organic Regulations” n.d.). The National Organic Program at large oversees labeling of organic foods with the mission to establish consistency and best practices in the certification process. Focusing on produce and farming, this certification does not present a holistic approach to sustainability. However, its impacts extend well beyond the boundaries of a farm. For example, The Juice Laundry is not farming organic produce but relies on this certification in order to source 100% organic ingredients. Rather than a score, achieving organic status involves meeting a certain standard of production for produce involving land requirements, soil management, seed planting, crop rotation, pest, weed, and disease management, and wild-crop harvesting (“Electronic Code of Federal Regulations” 2019). The organic label can also be applied to livestock, but for the purposes of this research, our analysis focused specifically on produce. To highlight a few of the criteria, an organic certification requires that there are no prohibited substances used within at least the last three years. This requirement prevents challenges for conventional farmers who are considering transitioning to organic farming. For at least three years, farmers must implement organic methods but are not able to reap the economic benefits of selling their produce at a higher price. Additionally, the farm must consist of very clearly defined boundaries and the seeds must also come from organically grown crops. These requirements, along with fees for application, site inspection, and annual certification, place hurdles in the process of becoming an organically certified farm rendering this certification inaccessible to some farmers. Furthermore, the many intricacies of what it means for produce to be organic can be confusing for customers because the specificity of this criteria has not mainstreamed what an organic farm looks like. Organic practices still take on many different forms; some farmers even rebel against the organic certification claiming that their farming practices go above and beyond what it means to be organic.

Differing from the focus on food, the TRUE certification focuses on waste, or lack thereof. TRUE's goal is to divert all solid waste from the landfill, incineration (waste-to-energy) and the environment ("Zero Waste Rating System" 2017). Targeting facilities, this certification examines 15 different areas of waste: redesign, reduce, reuse, compost (re-earth), recycle, zero waste reporting, diversion (minimum of 90%), zero waste purchasing, leadership, training, zero waste analysis, upstream management, hazardous waste prevention, closed loop system, and innovation. Each of these categories receives a score, and the summation of these scores places the facility in certified (31-37 points), silver (38-45 points), gold (46-63 points), or platinum (64-81 points). While this certification is not a holistic look at sustainability in that it focuses solely on waste, the scoring process demonstrates how even one aspect of sustainability can involve so many different points. Although TRUE is not very well-known, it is particularly relevant to the case study of The Juice Laundry because the business self-advertises as a zero waste facility.

The last certification examined in this report is the Sustainability Tracking & Rating System (STARS) program, which was formed under The Association for the Advancement of Sustainability in Higher Education (AASHE). Similar to the UN Sustainable Development Goals, this holistic certification covers a broad range of what it means to be *sustainable*. Developed for institutions of higher education, the STARS program aims to be a transparent, self-reporting framework for colleges and universities to measure their sustainability performance and has reached participation from nearly 1,000 institutions ("stars a program of aashe" n.d.). This is certainly the least relevant of the five certifications to The Juice Laundry; however, the program demonstrates a holistic examination of what it means for an institution to be sustainable. This certification operates as a scoring system, rating institutions in order of platinum, gold, silver, bronze, or reporter. These categories are based on self-reporting of sustainable performance in 17 different categories: Curriculum, Research, Campus Engagement, Public Engagement, Air & Climate, Buildings, Energy, Food & Dining, Grounds, Purchasing, Transportation, Waste, Water, Coordination & Planning, Diversity & Affordability, Investment & Finance, Wellbeing & Work. Furthermore, this program at the base level can be accessed through free registration, and only requires an annual subscription for access to additional tools.

Communication through Social Media

Several themes emerged when analyzing The Juice Laundry's most recent instagram posts. Their primary instagram account is very active, with several posts a week, if not every day. The posts showed variety, but the majority included one or more of the products for sale at The Juice Laundry. Additionally, there were several themes and phrases that were frequently included. Table 1 identifies the themes that were most prevalent through the posts and their frequency, which was calculated using the number of appearances compared to the total number of posts (202 total posts). The three themes that appeared the most often throughout the posts were organic (76.7% of posts), fresh fruit and produce (21.8% of posts), and outdoor settings (17.8% of posts). Additionally, it is important to note that many of these themes come from hashtags placed at the end of posts, rather than the main content of the images or their captions.

Table 1. Instagram Themes and Frequency

Coding Nodes	Frequency	Percent Frequency
Organic	155	76.7%
Fresh fruit and produce	44	21.8%
Outdoor Setting	36	17.8%
Team and Employees	31	15.3%
Zero Waste	28	13.9%
Community	22	10.9%
Happy Customer	21	10.4%
Sustainability	20	9.9%
Plant-Based	14	6.9%
Awareness	14	6.9%
University of Virginia	14	6.9%
Health Benefits	13	6.4%
Compost	11	5.5%
Child and Family	10	5.0%
Give-back	9	4.5%
Partnerships	5	2.5%

Environmental Impact Transparency

Considering the life of an average smoothie from The Juice Laundry, our investigation follows five main steps (**Table 2**). Mirroring the transparent pricing signage that already exists within their stores, this timeline aims to highlight The Juice Laundry’s decisions to improve their overall sustainability within the production of a smoothie; however, this examination was used to generate areas in which we see room for improvement. Beginning with the farms that the

ingredients grow on, The Juice Laundry proudly sources all of their ingredients from certified organic farms because they believe it is healthier for the environment and healthier for their customers. The next step is transportation of ingredients to the stores. Although many of their ingredients are sourced from tropical areas since smoothie menus predominantly consist of many different kinds of fruits that only grow near the equator, this section highlights how The Juice Laundry uses regional suppliers in an effort to maximize the efficiency with which these ingredients are delivered. Additionally, The Juice Laundry has established a relationship with a small farm local to Charlottesville, Radical Roots, from which they source leafy greens during climate-permitting seasons. Once the ingredients reach the stores, smoothies and juices are packaged in biodegradable cups/bowls or reusable glass bottles, respectively. The Juice Laundry sources their compostable cups and bowls from WorldCentric, a B Corporation dedicated to producing 100% compostable alternatives to plastic (“World Centric for a better world” n.d.). Additionally, their juices are sold in reusable glass bottles and customers may receive a 25 cent discount on their next purchase if they return a clean bottle. The Juice Laundry has also sought to increase the sustainability of their product sales by going cashless. Instead of shipping physical currency to and from their stores, the business transitioned to digital or exact change payment only in 2017; however, there is a lack of scholarly research that clearly defines cashless purchases as a more sustainable option. Lastly, The Juice Laundry self-advertises as a zero-waste facility sending all biodegradable plastics and napkins to an industrial composting company, BlackBear, as well as all food waste to local farms. While this graphic highlights the different ways The Juice Laundry has chosen to improve their sustainability, it leaves out many of the other hidden costs that are embodied in each of these steps of smoothie production. These costs and areas for improvement will be addressed and further considered in our discussion of these results.

Table 2. Smoothie Timeline

Ingredients	Transportation	Packaging	Sale	Waste
100% organic	Radical Roots and regional suppliers	Reusable bottles and biodegradable	Cashless	Compost: local farms and industrial

		cups/bowls		
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Discussion of Results

Certifications

The analysis of five different business certifications regarding sustainability did not reveal as many gaps in the existing certifications as expected; however, it did reveal significant overlaps between the certifications, and demonstrate different approaches to defining and labeling sustainable business. We predominantly considered the certifications in relation to one another regarding their relevance to The Juice Laundry. The two broadest frameworks we explored were BCorp and AASHE Stars. Comparing their criteria, they both involve a holistic approach to sustainability, including categories such as career development, and wellbeing and work, which may not appear on the surface to be relevant to sustainability. BCorp and AASHE portray how higher levels of sustainability impact the entirety of an institution or business, not solely aspects that seemingly relate to the environment. The other three certifications (Cradle to Cradle, Organic, and TRUE) target much more specific areas, demonstrating how a less holistic approach can allow for deeper criteria to be used on a single area of sustainability.

All five certifications displayed relevance to The Juice Laundry’s business model; however, we identified BCorp as the most relevant based on its target of businesses and holistic approach. We found that The Juice Laundry began the process of applying for the certification a couple years ago but as the business expanded, the application became more complicated, so they never completed the process. However, they are now considering reapplying for B Corp certification. The USDA Organic and TRUE certifications, although not as holistic, are also very pertinent to The Juice Laundry. As is demonstrated through the analysis of their Instagram, The Juice Laundry regularly communicates to customers their sourcing 100% certified organic ingredients and efforts to reach zero waste, which directly correspond to these two certifications. However, the owner of The Juice Laundry feels that they have been able to by-pass certification labels by establishing trust with their customers and increasing transparency in how they communicate their sustainability efforts.

Communication through Social Media

The analysis of The Juice Laundry's most recent Instagram posts revealed several things about the way the company communicates with consumers. One of the more obvious things is the frequency of the posts. By posting pictures often on their Instagram, The Juice Laundry is establishing a consistent form of communication between the company and the consumers. Social media is serving as a platform for The Juice Laundry to demonstrate core values, mission, and products on a regular basis. This keeps the consumer thinking about the company and its offerings while educating them about their choices. From the frequency of the posts, The Juice Laundry is then tasked with selecting what information they are communicating to the consumers and how they are marketing their mission and product. From the analysis of about 200 of their latest posts, several themes were identified that provide valuable insight into their communication. After identifying key themes and phrases from their Instagram posts, it was clear that having organic ingredients and products is one of the most important things that The Juice Laundry wants to communicate. When speaking with Mike, the founder of The Juice Laundry, he was extremely passionate about ensuring that 100% of the ingredients that they use are 100% organic. Mike even stated that they were even willing to pay a large premium for an organic good when they were out of season and hard to come by. With this information and the obvious pride that The Juice Laundry takes in being 100% organic, it makes sense that this is one of the main messages they want to deliver to customers. The second most popular theme found in the posts was related to fresh fruit and produce. This theme goes hand in hand with organic, and demonstrates pride in the ingredients that The Juice Laundry uses. Additionally, since many of the ingredients used are tropical fruits, they are typically bright in color and appealing to the eye. This is potentially serving as a marketing technique for The Juice Laundry, and is stimulating appeal for the products among consumers.

In addition to emphasizing their organic ingredients, The Juice Laundry's posts also repeatedly highlight several aspects of their business plan that can be identified as sustainable business practices. Out of the 16 themes that were identified as the most frequent, four of them are associated with positive environmental impacts: compost, plant-based, sustainability, and

zero waste. With these themes focused on sustainable practices of the company and environmentally-friendly lifestyle choices, The Juice Laundry is demonstrating the sustainable values of the company and targeting consumers that share those same values. In addition to the themes that are directly linked to sustainability, some post photos were taken outdoors, which implies a link to the environment and natural food choices.

The Juice Laundry also places emphasis on the community surrounding their store locations. Under the overarching theme of community, many of the posts specifically mention the location of one of their five stores in Virginia and the District of Columbia. They also reference getting to know members of community and forming connections, with statements such as “we are so grateful to have gotten to know a new community” (post from July 25th, 2019) and “#i love cville” (recurring as a tag in several posts). The connection to community and customers within those communities appears important to The Juice Laundry and the communication of their sustainable practices. Without having any official certifications relating to their practices, they rely more on interpersonal interactions to illustrate their choices and the resulting environmental impacts. By posting frequently about the community, The Juice Laundry illustrates their value for relationships and how they play a large part in their success as a small business. We also separated posts about the University of Virginia and its students. As the first store location was located in Charlottesville, VA and the founders both attended the University, the store has established itself as an important part of student life at the school. The Juice Laundry has several student ambassadors that currently attend the University and spread the word about The Juice Laundry’s products and mission to other students.

Not only do the Juice Laundry’s posts emphasize community, they also highlight several individuals in their posts, typically as customers who are posing happily with the products that they just purchased. Over ten percent of the posts that were evaluated included a picture of The Juice Laundry’s customers. This also helps The Juice Laundry illustrate the existing producer-to-consumer relationships and communicate customer satisfaction through their posts. Several of the posts highlighting customers include images of children and families. In the discussion with Mike, he noted that they attempt to include posts that represent customers that

are not in their typical demographic. Including children in their posts is one example and demonstrates the wide-variety of customers at The Juice Laundry.

Further connecting the positive impact that community has on The Juice Laundry's business, the posts also call attention to partnerships that The Juice Laundry has with other businesses, such as the company that does their composting. The Juice Laundry highlights how it gives back, including part of the proceeds from their waterboy smoothie, being donated towards a clean water foundation.

The Juice Laundry also includes information related to the health benefits of their various products. By identifying these benefits, such as "hydrating" or "protein-rich", The Juice Laundry is appealing to customers that prioritize their well-being through the perks of eating natural foods. Adding this information to the posts also serves to educate the consumer about the food they are eating and helps them make more informed choices.

It is also important to note that the majority of the themes discussed emerged from the hashtags that The Juice Laundry uses in their posts. Since hashtags are often used by social media users to identify trending materials, their tags influence how their posts are shared. This has likely led to consumers that share the same interests and values seeing the posts and displaying interest in The Juice Laundry. This information gathered shines a light on the way that small businesses can be expected to communicate with their customers about their business practices and values.

Environmental Impact Transparency

The Smoothie Timeline (**Table 2**) emphasizes which aspects of sustainability The Juice Laundry is doing well. Designed to be a mode of communication with customers, it is a form of advertisement and therefore focuses on the positive aspects of the company's business model that would be attractive to consumers; however, this graphic does not transparently convey all aspects of the environmental impact of smoothie production. Two main recommendations for improvement that arose from this analysis involve the ingredients and packaging steps. The Juice Laundry has a personal relationship with Radical Roots, the local farm that seasonally supplies leafy greens. However, outside of this relationship, the business does not have any personal

connection to the other produce suppliers. Suppliers have been chosen solely based on their USDA organic label, ability to supply regionally, and limited use of non-reusable packaging relative to competitors. Although minimizing transportation mileage and plastic packaging are important parts of sustainability, these decisions lack a social component. For this reason, we suggest The Juice Laundry further research the specific farms that their produce is being sourced from in order to gain a better understanding of what the organic label means on each of these farms as well as what farm worker conditions look like. Regarding packaging, it is once again a step in the right direction to implement a bottle return program and the use of compostable cups and bowls. However, compostable plastic alternatives are often advertised as more sustainable than they really are. For this reason, we suggest further analysis of the embodied energy of these products, aiming to answer questions about how much energy goes into producing them as well as breaking them down through industrial composting, and what toxins may be released in these processes.

The process of creating this graphic highlighting what the business is already doing well helped to shed light on what the business could do to improve. However, if the business were to advertise their room for improvement instead, they may go out of business. Taking this into consideration, we do not suggest adding on to the smoothie timeline, rather we are recommending that these areas are given further consideration in order for the business to continually strive to reach higher levels of sustainability. Additionally, if a graphic like this were to be posted in stores, we would suggest that the word transparency be used mindfully. Although this graphic falls under the effort of increasing transparency in business-to-consumer communication, it does not include all aspects of the business's environmental impact. Misuse of the word transparency, therefore, could be misleading to customers in the presentation of sustainability initiatives and unintentionally contribute to a culture of greenwashed consumerism.

Conclusion

In the midst of environmental changes and crises, there have been several theories presented that address strategies of combating and mitigating these changes. One of which is Sustainable Development, which goes hand-in-hand with Natural Capitalism, and at its core, is

the idea of “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (“Our Common Future” 1987). The main goal of this paper was to evaluate the effectiveness of sustainable development on a small scale and to examine the way that businesses have reacted to the idea of greening their business practices. One specific company, The Juice Laundry, was investigated, which produced several implications.

Through our study of existing certifications that attempt to measure the sustainability of a business, we found, with nearly every certification representing a different aspect of the business and specific practices, it can be difficult for a company to holistically value the sustainable components of the company. This issue is enhanced by the fees that come with each of the certifications, making it unrealistic and illogical for a company to obtain each certification to cover all of the areas of their business. This is an issue that comes with measuring sustainability and, in turn, influences the way that companies communicate with their consumers.

The Juice Laundry has not taken the steps to get certified but focuses on direct communication with their consumers to educate them on the company’s sustainable practices. By analyzing The Juice Laundry’s most recent instagram posts, it became clear that the company focuses on specific practices, such as using 100% organic ingredients and composting waste. It is likely that other companies also use this technique and attempt to communicate their most sustainable practices directly to consumers. This takes away the need for a certification to display their sustainable choices but also enhances the opportunity for companies to green-wash their practices with no system to check the validity of the statements. To address this opportunity, we examined The Juice Laundry’s business model, from their supply chain to their post-consumer waste, to understand what sustainable practices they have adopted and to identify any areas where they could improve. The information that we gathered from The Juice Laundry demonstrated that the company was putting effort into making sustainable choices but did not place weight on quantitative data that supported the impact that these choices made. As we continue to move toward a climate crisis, it will be important for companies to value producing quantitative data that supports the sustainability of their practices as it can allow for more

educated consumer choice, which plays a role in creating a system where Sustainable Development can be effective.

It is possible, if not realistic, that society can shift towards a system that allows the balance of development and protecting natural resources, but this will require a commitment from both businesses and individuals. Businesses must evaluate (and be evaluated on) the sustainability of the practices from a holistic perspective and the methods of communicating these results to consumers must be streamlined. There are companies, such as The Juice Laundry, attempting sustainable business processes. However, it will take more participation, at an advanced level, to create real change within the current capitalistic system.

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Appendices

Figure 4. Transparent Pricing Sign. From: The Juice Laundry Store, Charlottesville, VA

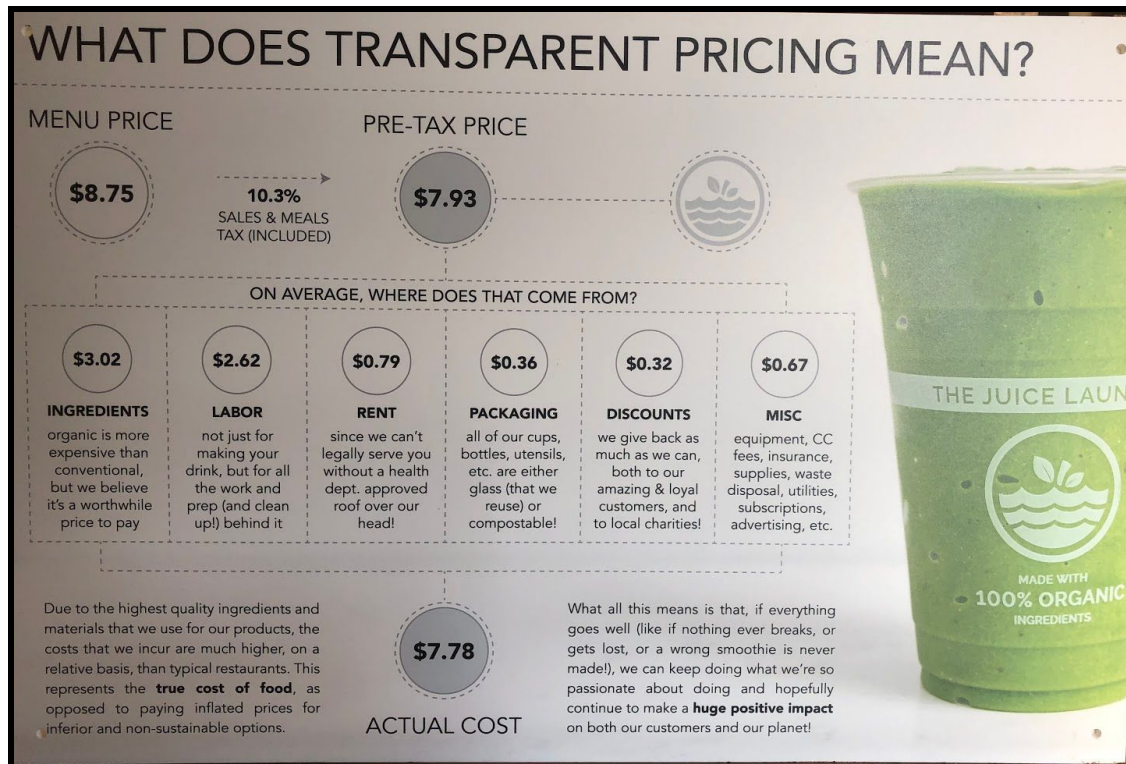


Table 3. Certification Table

	Mission	Impact	Target	Accessibility	Holistic	Scale or Label	Criteria
	what is the main goal of this certification?	how widespread is this certification? # of users? geographic stretch?	who is the intended audience? a single product? a small/large business? school?	application fee? renewal fee? expiration?	just one aspect of sustainability or attempting to be a greater overview?		What do they look at?
BCorp	Balance purpose and profit	3,086 Companies in 71 countries are currently certified	Small and Large businesses	Annual fee based on annual sales. Update scores every 3 years	Attempting a wide perspective	Label, must get a score of 80 on assessment	Mission & Engagement, Ethics & Transparency, Governance Metrics, Mission Locked (legal requirements), Workers Impact areas intro (Hourly vs salaries, Use of labor (subcontracts etc), Ownership structures, # of workers full time and part time), Financial Security, Health Wellness and safety, Career Development, Engagement and Satisfaction, Community Impact Area Introduction, Diversity, Equity & inclusion, Economic Impact, Civic Engagement and Giving, Supply Chain Management, Environment Impact Area Introduction (Facilities, Business Model), Environmental Management, Air & Climate, Land & Life
Cradle to Cradle	Support products with a positive impact on people and the planet	Upwards of 581 products	Single Product	Application and renewal fee (every 2 years)	Greater overview	Scale	Material health, material reuse, renewable energy and carbon management, water stewardship, social fairness
Organic	To support organic food integrity through certification and clear labeling of farms and products. NOP to establish consistency and best practices in certification process	National scale. More than 14,000 certified organic farms in 2016	Farmers	Fees vary based on certifier but include an application fee, site inspection fee, and annual certification fee	Only covering organic farming	Label	
True	Goal is to divert all solid waste from the landfill, incineration (waste-to-energy) and the environment	Certified advisors exist in 20 different countries	Facilities	Fixed registration fee in addition to variable (per facility) certification fee	Only covering zero waste	Label, must meet seven minimum program requirements and attain at least 31 points on application	Redesign, Reduce, Reuse, Compost (re-Earth), Recycle, Zero Waste Reporting, Diversion (min 90%), Zero Waste Purchasing, Leadership, Training, Zero Waste Analysis, Upstream Management, Hazardous Waste Prevention, Closed Loop System, Innovation
AA S&P Stars	a transparent, self-reporting framework for colleges and universities to measure their sustainability performance	981 institutions predominantly in the United States, also in Canada, Mexico, and other countries.	Institutions of Higher Education	Free registration, annual subscription free for additional reporting tool access	Greater overview	Reporter	Curriculum, Research, Campus Engagement, Public Engagement, Air & Climate, Buildings, Energy, Food & Dining, Grounds, Purchasing, Transportation, Waste, Water, Coordination & Planning, Diversity & Affordability, Investment & Finance, Wellbeing & Work