

Culminating Experience Final Report Outline

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Stern Produce Sustainability Assessment and Performance Reporting

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1. Abstract

Stern Produce has been a prominent agricultural produce distributor in Arizona since 1917, with three distribution locations in the state: Phoenix, Tucson and Flagstaff. The company is a wholesale supplier of produce, meat and dairy products. Stern Produce is seeking to create comprehensive sustainability metrics to develop sustainability baseline information on their operations. This project, in partnership with Stern Produce's Sustainability Coordinator, provides a final report that describes the sustainability indicators and metrics, provides recommendations for future growth, and highlights immediate areas of impact using the Hart and Milstein's Sustainable Value Framework (2003).

Under the three tenets of people, earth and business, the sustainability areas to focus on for Stern Produce are: sustainable procurement (internal and external); fleet management; organizational continuity; sustainable communities; and, sustainable building operations. By formulating sustainable focus areas, Stern Produce is acknowledging the significance of integrating environmental consciousness with economic performance and social benefits. Based on the findings, the project will assist Stern Produce in identifying intervention points and find new ways to mitigate negative operational outputs. Moreover, the project will facilitate cross-department engagement and involvement, provide data for sustainability key performance indicators, and further social commitments to operating sustainably. Measuring and reporting operations also improve transparency within the company and with external partners. Furthermore, the assessment proposes sustainability initiatives to address staff and community wellbeing concerns. Thus, the project uses a triple-bottom line approach to assess Stern Produce and translate the sustainability indicators into value for the company.

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3. Introduction

A sustainable enterprise “is one that contributes to sustainable development by delivering simultaneously economic, social, and environmental benefits—the so-called triple bottom line” (Hart & Milstein, 2003). Stern Produce is an enterprise seeking to be sustainable by formulating comprehensive sustainability metrics. Stern Produce has been a prominent agricultural produce distributor in Arizona since 1917, with three distribution locations in the state: Phoenix, Tucson and Flagstaff. The company is a wholesale supplier of produce, meat and dairy products. This project, in partnership with Stern Produce’s Sustainability Coordinator Kristen Osgood, provides a final report that describes the sustainability indicators and metrics, provides recommendations for future growth, and highlights immediate areas of impact. The resulting sustainability measurements will subsequently generate the business case for sustainability initiatives, build internal buy-in, and develop sustainability baseline information on their operations.

Since Stern Produce is a distributor of wholesale produce and not an agricultural producer in a food chain system (Fig. 1), the company must understand how to extract value from their services rather than the “products” they trade. The key differentiation between value chains and traditional supply chains include elements of: “differentiating value-added products, committing to the welfare of all participants, creating strategic partnerships and the role of trust and shared governance” (Bloom & Hinrichs, 2011)—in this case, *value-added service* rather than products. Adding value demands the company to focus and hone into specific areas of their business and activities that can be strategically enhanced to achieve sustainability (Tanzil & Beloff, 2006).

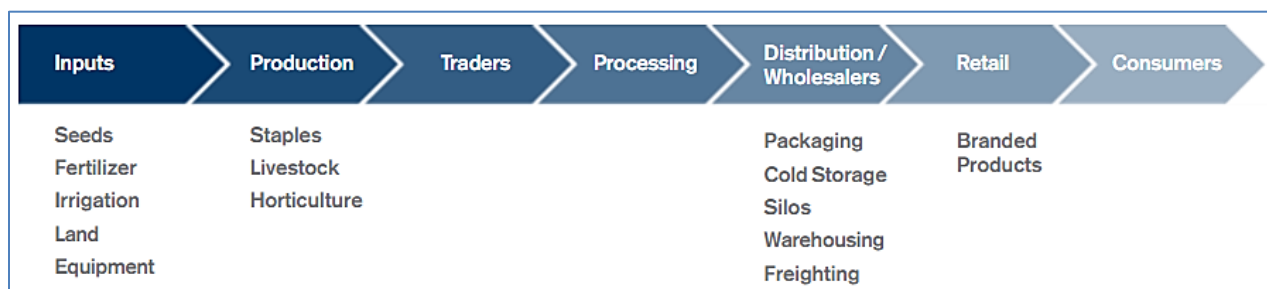


Figure 1. Traditional view of the Agribusiness Value Chain (International Finance Cooperation, 2015). Stern Produce is a “Wholesaler” in the food chain.

Sustainability-added values can only be assigned via reliable measurements, retrieved from in-depth testing and documentation “ideally from an independent reviewer, companies can build trust in their supply chains and offer this choice to their target markets” (Nita, 2013). To be sustainable, Stern Produce lacks the foundation of sustainability measurements—or even efficiency metrics—to establish any basis of performance or progression towards being more sustainable. An example of potential sustainability indicators for a food supply chain actor (Zecca & Rastorgueva, 2014) are exhibited in Table 1, “[s]pecific indicators can demonstrate the degree to which the food system is resilient, profitable and competitive” (Manning & Soon, 2016). Without being able to provide evidence and transparency in data logging, measuring and

tracking, Stern Produce will be unable to generate effective stakeholder value from sustainability efforts.

Table 1. General sustainability indicators for actors in a food supply chain (Zecca & Rastorgueva, 2014).

Environmental	Social	Economic
Energy consumption	Employment	Labor productivity
Water consumption	Wages	Market concentration
Waste arising	Employment gender ratio	Import dependency

By formulating strategic sustainable focus areas, Stern Produce is acknowledging the significance of integrating environmental consciousness with economic performance and social benefits. For instance, sustainability assessments can systematically track efficiency of operations and address inefficient energy use, as well as reduce compliance and health risks. Additionally, sustainability reports reveal potential improvements and cost savings to a system (Hart & Milstein, 2003; Manning & Soon, 2016). Based on the findings, the project will assist Stern Produce in identifying intervention points and find new ways to mitigate negative operational outputs. Moreover, sustainability assessments developed for Stern Produce facilitate cross-department engagement and involvement, provide data for sustainability key performance indicators (KPIs), and further social commitments to operating sustainably. Measuring and reporting operations also improve transparency within the company and with external partners (Hart & Milstein, 2003; Manning & Soon, 2016). Furthermore, the assessment strategy implements prospective sustainability initiatives that address staff and community wellbeing concerns. Thus, the project uses a triple-bottom line approach to assess Stern Produce and convey the sustainability indicators into value for the company. Ultimately, Osgood hopes to have annual sustainability reports to communicate their efforts and positive impacts on their business and community substantiated with transparent, qualitative, and quantitative indicators.

4. Background and Context

Stern Produce is a small-scale, family-owned business that mainly operates from its 45,000 sq. ft. Phoenix location since 1996. Tucson is a smaller facility at 10,000 sq. ft. followed by the 5,484 sq. ft. Flagstaff location which primarily functions as a cross-docking station. Thus, the project has stemmed mostly from the Phoenix location circumstances, but the recommended strategies will also address the smaller locations. The Phoenix offices are linked to a food storage warehouse that is allotted as per the type of goods and its storage needs (chilled, warm, damp or dry etc.), as well as serves as a pick-up and drop-off point for deliveries. Stern Produce does not perform much value-adding processes, as in, they receive the goods from their suppliers and may re-pack them from large cases to smaller amounts (i.e. bunches for retailing) using plastic and cardboard packaging.

Stern Produce's community involvement over the years has been through salable and non-salable, edible food contributions to the community (i.e. in-kind donations to charitable causes to St. Mary's Food Bank in Phoenix) and through non-salable food donations to animal farmers that are unfit for human consumption standards but acceptable for livestock. These food bank donations are filed for charitable tax write-offs (in equivalent cost of donated goods), though Stern Produce tends to exceed the tax deduction limit every year. However, such donations are not formally tracked by weight or appropriately quantified. Moreover, the donations are not formally tracked by weight or appropriately quantified in charitable donation receipts, often described in ambiguous terms i.e. stating "pallets" which doesn't convey weight or quantity to the extent as the term "cases" does.

In 2012, the company experienced a major loss in leadership with the sudden demise of its president and chief owner. Stern Produce remained as family-owned and private business however, challenges in management and capacity heightened, leading to fairly recent changes in management in the last few years. Under strain, the current Chief Operating Officer (COO) was recently brought onboard to recover, enhance and progress the business. In order to have a sustainable business that will last for another 100 years and more, the COO has embraced sustainability as a vital element in fostering a longstanding company that positively impacts their employees and community, while adapting to changes. Consequently, the COO hired Osgood as the Sustainability Coordinator in July 2016 in recognition of the significance of sustainability to business growth. Such enhancements include attempting new ventures to improve operational and management efficiency. For instance, they plan to extend a section of the warehouse in order to allow the forklifts to move more fluidly around storage aisles, preventing unnecessary forklift energy use. Since early 2017, they have been in progress of introducing and implementing the use of Customer Relationship Management (CRM), Fleet Route Planning, and Warehouse Management System (WMS) software applications typical to the warehouse and logistics industries.

Moreover, Osgood has been assessing the company and pinpointing new avenues for sustainability such as establishing local partnerships to benefit the local economy and better paper/cardboard recycling strategies. Stern Produce can initially tackle low-hanging fruits of inefficiency, such as pollution prevention efforts that are low-order sustainability practices. Pollution prevention is "focused on improving the environmental efficiency of today's products and processes" (Hart & Milstein, 2003). This would mean operational waste and emission reduction at the source, which is an indicator for maximized use of inputs but also entails lower costs for materials and waste disposal. But, Stern Produce had not been tracking waste outputs or emissions before Osgood, thus, creating the need for a metric system that can indicate cost and risk savings. Nevertheless, pollution prevention requires extensive employee involvement to be effective, as well as continuous improvement and management. Hence, employee engagement and training must also be considered as part of the project collaboration (Hart & Milstein, 2003).

Overall, Osgood had been operating towards building what she terms as “regenerative business”. According to Osgood, a regenerative business model is a holistic long-term integrated approach to building an economy where biologic and social production grow increasingly more diverse over time with continued increasing yields, while decreasing external inputs. Essentially, this model necessitates transformation and upfront improvements to a system to use resources more efficiently while operating with less time and labor, and limited impact to the environment in the long run. Thus, decision-making in this project—and by Osgood at Stern Produce—was done based on this regenerative approach to achieve the outcome of a regenerative business.

A. PRO*ACT USA Network Partnership and Sustainability Assessments

Stern Produce is a PRO*ACT USA partner. PRO*ACT USA is a national network of independent local produce distributors that trade goods with each other and trade globally based on supply, operating coast-to-coast. PRO*ACT USA have their own seed-to-fork sustainability program called “Greener Fields Together” (GFT), requiring partners to report conscious production and resource consumption. As per PRO*ACT (2016), Stern Produce’s company profile sustainability contributions are simply listed as “Carries Local Products” and “Donates Hours and Product to Local Charities and Non-Profits”. Stern Produce has the potential to augment even more contributions to such sustainability remarks, remarks that comment to potential efficiency efforts, social impacts and innovative strategies. For instance, a PRO*ACT distributor in Las Vegas, Nevada listed sustainability contributions such as: “Sends Compost and Organic Waste for Livestock Feed”; “Pallet Recycling Program” and “Performs Annual Eco-Audits to Track Resources” (PRO*ACT USA, 2016). As a prominent player in agribusiness, Stern Produce’s efforts in striving towards being more sustainable will encourage competitors and other partnering stakeholders (i.e. supply chain distributors) to do the same to be on equal levels of business. Eventually, the sustainability efforts could be recognized publicly and used as a benchmark within the local market.

In December 2016, Osgood was abruptly informed that Stern Produce was expected to fill out a self-assessment sustainability survey as part of being a PRO*ACT wholesaler/purveyor and GFT participant. Consequently, Osgood rushed to collect the requested information to enter into the sustainability survey portal from the various Stern Produce departments and meet the deadline set by PRO*ACT. The purpose of the online portal survey was to annually track progress in various resource management aspects of their facilities (or farms in the case of PRO*ACT farming partners) such as: transportation, material handling equipment, energy use, waste, packaging and office supplies/equipment. The processed information was then assessed for performance and benchmarking. Sure Harvest is the company that had created a sustainability management information system and customized platform portal for PRO*ACT. The challenge of using the PRO*ACT sustainability portal was that there was no purpose explained for the survey questions nor the direct impacts translated from the numbers. After contacting PRO*ACT’s Sustainability Manager, it appeared that Sure Harvest did not provide any consultation on ways to improve sustainability and only aggregated the results for PRO*ACT in

the case of their wholesalers. As of April 2017, PRO*ACT terminated the Sure Harvest relationship, which the project team discovered only after unsuccessfully attempting to access the voided online sustainability portal. With this tool unavailable, the project outcomes have become even more necessary to meet Stern Produce's sustainability assessment objectives.

Another self-assessment tool Stern Produce has been using is the Green Business Certification by the Green Business Bureau (GBB). The GBB provides an online self-assessment survey for existing sustainability initiatives in the company, such as energy and general office resource consumption, business practices, community involvement, and efficient transportation (Green Business Bureau, 2009). The initiatives are rated on a point-system which the company ticks off and earns certain points depending on the value of the effort. For instance, Stern Produce earned 27 points for applying window film to reduce cooling strain and earned 4 points for selling/returning toner cartridges. Since enrolling in 2016, Stern Produce is currently a Green Platinum tier certified green business, the highest rating possible, and saving 68290 trees per year according to their result. While the GBB is ideal for small businesses with little knowledge of environmentally friendly practices and sustainability, it is not sufficient to create the long-term value Stern Produce is seeking. Once the points are scored, there isn't a progress evaluation for the next year; the GBB isn't designed to track performance over time but rather just offering initiatives and recommendations on implementing them. Both the PRO*ACT portal and the GBB self-assessment tools act as Voluntary Environmental Programs (VEPs) where organizations voluntarily "pursue a proactive environmental strategy"; such programs tend to mainly address low-order sustainability practices such as pollution prevention and product stewardship, as VEPs are designed to be accessible rather than demanding for drastic change (Kurapatskie & Darnall, 2012).

B. Stern Produce "Arizona Fresh Together" Purchasing Program

In most supply chain networks, such as food chain systems, efficient logistics and technologies are critical success factors for distributors like Stern Produce. It would be reasonable to assume that "buying local" tends to be the most sustainable pathway, due to the local economic and environmental impact of conducting proximate business and less food miles travelled. However, "buying local" in the USA would reduce agri-food GHG emissions by only around 4% to 5% at the most" (Food and Agriculture Organisation (FAO), 2015). Regardless, efficiency of distributors can be maximized by "active coordination of the supply chain, including sharing information between participants and joint problem solving" versus "adversarial, competitive relationships" (Bloom & Hinrichs, 2011). Osgood has identified this as a hurdle Stern Produce must mitigate and has been working towards re-forging local partnerships and shortening the supply chain miles as the following will discuss.

Stern Produce does not locally source most of their produce because out-of-state purchasing tends to be more economical, as well as dictated by their national network partner, PRO*ACT. Nonetheless, as of January 2017, Stern Produce launched "Arizona Fresh Together"

(AFT) which is a brand-new program championed by Osgood. The AFT program is dedicated to promoting the purchase of local goods (produce, dairy, meat etc.) by providing Stern Produce customers with a platform to buy from Stern Produce's seventeen local food producer-established partnerships. The AFT purchasing program guide booklet defines local as within a 150 mile radius from each of their three locations, all within Arizona state lines (Appendix 8-A). Additionally, the AFT booklet catalogues the partnered company profiles, introducing their business and lists their provisions. Stern Produce also distinguishes the local goods as USDA certified "organic", "sustainable" is recognized as third-party certified (i.e. certified naturally grown, rain forest certified, etc.) and "made" includes products locally made but not necessarily with locally sourced ingredients. Thus, clients can be more selective and Stern Produce retains further transparency. According to Osgood, aligning with these 17 local producers was not a straightforward feat. Such business relationships entail long-term commitments to yield consistent, quality supply and quantity that competes with large scale competitors. Stern Produce's customers must trust that their purchase requests will be satisfied and Stern Produce must be able to keep consistent supplies in order for the AFT program to be a viable success. Osgood is working on getting more AFT producer participants in order to diversify the availability portfolio and strengthen the network. However, it is not common for small, local farms to be third-party food safety certified, which is an AFT minimum requirement of suppliers.

5. Project Approach

A. Project Initiation and Literature Review

The intention of this project is to identify sustainability indicators for the Stern Produce locations. Existing sustainability research on food system and food supply chain participants were reviewed to understand the concerns of wholesalers like Stern Produce (Bourlakis et. al, 2014; Manning & Soon, 2016; Hartmann, 2011; Rimmington, Smith & Hawkins, 2006; Yakovleva & Flynn, 2004; Zecca & Rastorgueva, 2014). Research was also conducted to seek the best approach to assess a small enterprise in the food and distribution service using a sustainability lens (Pope, Annandale & Morrison-Saunders, 2004; Tanzil & Beloff, 2006;) as well as to determine the optimum KPIs for retrospective sustainability reporting (Guo et. al, 2015; Keeble, Topiol & Berkeley, 2003; Rimmington, Smith & Hawkins, 2006; Yakovleva, 2007; Yakovleva, Sarkis & Sloan, 2010). The research findings guided the process and provided structure to the methods. The approach taken by the project team was to answer four key questions (Keeble, Topiol & Berkeley, 2003):

- "What is critical and relevant to the organisation?"
- What commitments does the organization need to support?"
- How will they benchmark performance?"
- What do stakeholders expect of them?"

There were two site visits to the Phoenix location, once prior to the project initiation and again for a management meeting. The project team (Kristen Osgood and Nagelle Fernandes) met weekly when convenient to discuss Stern Produce activities, and co-design and co-develop the project scheme for the purpose of identifying intervention points in their operations and decision-making. The meetings also facilitated exchange of information as Osgood was the single source for reliable information on the company itself. Since Stern Produce is a small company that mostly operates on buying contracts, not much online information about the company is posted. Subsequently, Osgood and the company supplied the project with the necessary information where possible to assess sustainability performance. Accordingly, unprocessed data will be used to generate baseline sustainability measurements for tracking and reporting the performance metrics, i.e. utilities, fuel use, waste, emissions, procurement, social impact etc.

B. Formulating the Sustainability Reporting Approach and Techniques

To select data reporting mechanisms suitable for Stern Produce, the project team explored published Corporate Social Responsibility (CSR) reports, Corporate Sustainability reports and Integrated reports (annual corporate reports that integrate financial and sustainability reports). Such reports were examined in the companies' involvement in the food and distribution industry, such as: Aramark Leisure (2014); Arla Foods (2016); ConAgra Foods (2017); CLIF Bar (2016); General Mills (2015); Hormel Foods (2015); Organically Grown Company (2016); Organic Valley (2015); Sierra Nevada Brewing Co. (2016); SpartanNash (2017). The project team discussed: how the companies reported their sustainability efforts, what were their sustainability focus areas, what solutions/strategies they were implementing to solve risks and what KPIs they were using to measure success.

As Stern Produce is a small business, it was not ideal to scale down multinational company reports to Stern Produce since their impact is not global in scale. Henceforth, Osgood selected the sustainability report published by the Organically Grown Company (OGC), the largest distributor of organic produce in the American Northwest (Organically Grown Company (OGC), 2016), as a guide. The appeal of the OGC annual sustainability report was not a corporate piece but rather an earnest, high-level report that aesthetically and promptly reported their impacts and mitigation strategies in organic farming, transport of goods, workplace vitality and food system communities (OGC, 2016). Thus, a sustainability report for Stern Produce in the future must reflect its family-oriented beginnings and community focus. Based on reviewed CSR reports and the like, the project team drafted core focus areas of sustainability that would pertain to Stern Produce's values, operations and services.

Essentially, the project team is designing the assessment based on what is envisioned as the desired outcome: a wholesome and conscientious annual report that communicates Stern Produce's sustainability efforts with relevant indicators depicting how they are tracking and achieving goals. The report isn't meant to be meticulously constructed—i.e. like reports by multinational companies using the Global Reporting Initiative (GRI) Guidelines—but rather

intended to be more informal and reflect the values of the small-medium sized company and staff. The objective is to be genuine and uncomplicated, while representing their concern of their internal and external impacts. Osgood's experience and observations, as well as other company corporate social responsibility reports, have served as references to formulate focus areas, new strategies and assessment ideas for how to report sustainability efforts now and after project completion. Hence, the end result of the project entails a tailored reporting scheme for Stern Produce using 2016 as the baseline year of study. The reporting scheme will be fleshed out further in 2017 and fully implemented at the start of their 2018 fiscal year. Eventually—after this project—data will be aggregated and annually reported to the company and the public.

C. Stern Produce Management Discussion and Data Retrieval

Based on the established focus areas, the project team selected a range of suitable sustainability indicators and reporting schemes from reviewed literature and company reports as well as the PRO*ACT self-assessment portal (based on the survey questions before the website termination in April 2017). Subsequently, the mid-project findings of industry sustainability actions were compiled in a slideshow and presented to the management leaders of Stern Produce. The presentation discussion mostly brought to light the options that were improbable and too costly due to high upfront costs, low return-on-investments and impracticality (e.g. biofuelled fleet, solar roofing, unnecessary warehouse upgrades etc.). Nonetheless, the discussion also highlighted interests in developing business skills and decision-making with their producer suppliers and diversifying Stern Produce's business offerings. Following the management meeting, Google Form surveys were sent to the management leaders in order to distinguish effective KPIs pertaining to their operations in respect to the sustainability focus areas. The surveys to each management team—logistics, human resources, local procurement, and food safety—requested information on who was responsible and what process was necessary to acquire the data (i.e. software applications, third-party source, manual data collection etc.).

D. Stern Produce Assessment using Hart and Milstein's Sustainable Value Framework (SVF)

Simultaneously, the company was evaluated based on Hart and Milstein's Sustainable Value Framework (SVF) (2003) to map the company's standing in sustainability efforts and to indicate intervention points for future growth (Fig. 2). The SVF is a multi-dimensional diagnostic tool that can guide current and future identification of missed opportunities to create sustainable growth and shareholder value in the face of constraints, as well as vulnerabilities the enterprise may experience. The SVF framework "rationalizes many corporate sustainability activities in a business-oriented way by examining the strategic approaches firms could take to be more competitive" (Kurapatskie & Darnall, 2012). Application of sustainability assessment frameworks can assist businesses to discern intervention points in their operations and activities and what pathways to follow to maximize return-on-investments. Therefore, although not requested by Stern Produce, the company was purposefully mapped using the SVF because it provides context and guides management to weigh options to utilize tools and techniques to

achieve certain goals. Additionally, the recommendations to the company will be framed using the SVF to identify sustainability drivers and suggest strategies to achieve sustainable corporate outcomes that are more institutionalized. Rather than just listing suggestions and acting on them, the SVF assessment can allow management to critically consider the outcome they want to achieve as a company.

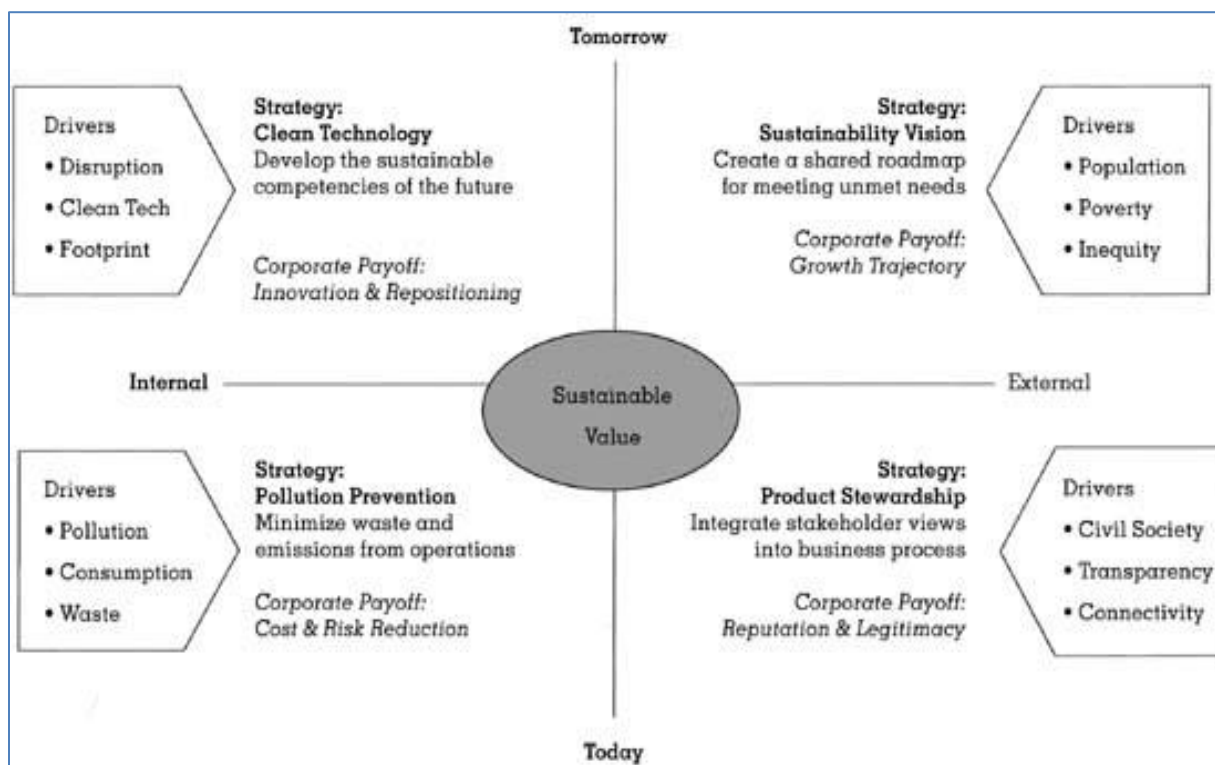


Figure 2. Sustainable Value Framework (Hart & Milstein, 2003).

The SVF is a two-by-two matrix used to map an organization or program on the spectrums of internal to external and today to tomorrow (Fig. 2). The bottom left quadrant looks at current internal operations for pollution prevention which indicates improvements in environmental efficiency of participant’s products and processes by reducing waste and emissions from current operations. The upper left quadrant maps innovation and clean technology, which involves the internal operations of tomorrow. The bottom right quadrant looks at product stewardship—which integrates environmental impact reduction of operations across its lifecycle and today’s external stakeholder initiatives. The upper right quadrant analyzes tomorrow’s external relationships and efforts (Hart & Milstein, 2003). Concentric rings will be added on the framework to represent whether sustainable actions are emerging, established or institutionalized in each quadrant of the framework, and the absence of action is regarded as non-existent at the core (Hart, 1997). Using this rating scheme, Stern Produce will be assessed as to how their current operations and activities balance on the SVF matrix and to further understand the successes, challenges, vulnerabilities, and opportunities for Stern Produce. Higher ratings at the bottom of the matrix imply good current conditions but susceptible to future vulnerability. Higher ratings at the upper-

half of the matrix signifies a lack of operational or analytical ability to implement a sustainable vision (Hart, 1997). Emphasis on the left side of the matrix conveys a company's "preoccupation with handling the environmental challenge through internal process improvements and technology-development initiatives", whereas being skewed to the right side could potentially appear as greenwashing since there is lack of internal effort to mitigate environmental harm (Hart, 1997).

6. Findings

A. Stern Produce Sustainability: Three Tenets of People, Earth and Business

As stated in Section 5 Project Approach, CSR and sustainability reports were evaluated to assist the project team in building a sustainability vision and formulating steps to achieve outcomes. The process was quite prolonged since the project team was eager to pinpoint the most effective and suitable focus areas. These areas needed to be relevant for the next few years since the selected KPIs would be based on these interests and be used for the long-term. In regards to Stern Produce's values and operations, the project team narrowed down the sustainability areas to focus on: sustainable procurement (internal and external); fleet management; organizational continuity; sustainable operations; and, communities. These five focus areas will fall under three sustainability tenets of People, Earth, and Business for Stern Produce (Fig. 3)—thus a triple-bottom line approach. In an attempt to be less formal and more unique to Stern Produce, the company's catchphrase was linked to the tenet titles in order to feel more genuine and true to the company as "Stern Produce Positively Impacting People/Earth/Business" (Fig. 3). This expression is still a work-in-progress and so is still open for further tailoring to the Stern Produce brand.

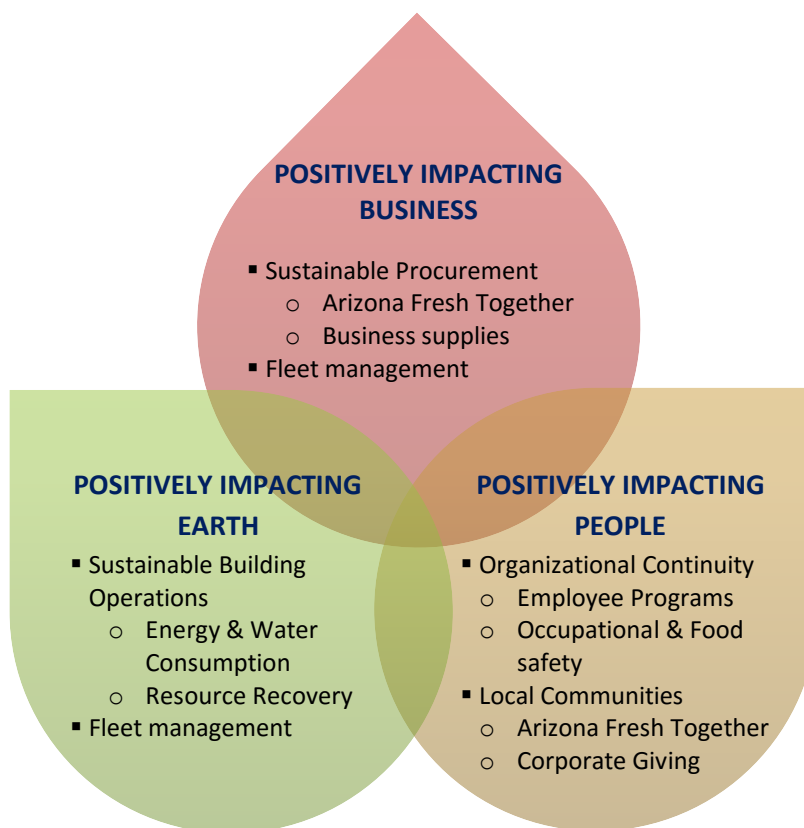


Figure 3. Stern Produce Three Tenets of Sustainability: Positively Impacting People, Business and Earth. Sustainability focus areas under each tenet is included.

Responsible or sustainable procurement can be defined as “a process whereby organisations meet their needs for goods, services, works and utilities in a way that achieves value for money on a whole life basis in terms of generating benefits not only to the organisation, but also to society and the economy, whilst minimising damage to the environment” (Chartered Institute of Procurement and Supply, 2009). As a wholesaler of produce, Stern Produce procures and distributes goods, their business depends on the quality of goods and service of supply. Thus, sustainable procurement is a chief concern as reflected by their recent local purchasing program launch of Arizona Fresh Together, and thereby a core focus area under the Business Tenet. As of now, the sustainable procurement emphasis is on goods purchasing (in terms of local and local/non-local organic or sustainably produced), but this project will also provide an angle for sustainable purchasing of business supplies in the future. In order to practice waste aversion, office, warehouse and cleaning supplies could be purchased based on local and/or recycled content, reusability, recyclability, ecologically-friendly etc.

As a distributor of goods, the Stern Produce delivery fleet is expected to be a major contributor to their carbon footprint. Thus, fleet management is an integral part of the sustainability vision and is emphasized in the two tenets of Business and Earth. Highlighting fleet management was also a common focus for most of the CSR reports reviewed. Under the Business tenet, Stern Produce will focus on driver safety accidents and fleet efficiency in regards

to logistical aspects of deliveries, miles travelled and fuel used. Whereas for the Earth tenet, fleet management would be carbon dioxide equivalent emissions for the different fuel types used in their fleet.

The People tenet includes organizational continuity and local communities. In terms of sustainability, the project team is characterizing organizational continuity to pertain to employee success and wellbeing in the company and involvement with the community. Currently, Stern Produce has a partnership with a health club chain where employees receive a discount, as well as access to English/Spanish classes. Most of Stern Produce's contribution to community is through in-kind donations. In addition, this applied project is considered part of the community involvement as the company is providing a channel for real-world application for the student. This project envisions Stern Produce future implementation strategies that highlight workforce stability and wellbeing through established employee programs by 2018, as influenced by reviewing the CSR reports. Potential employee programs include volunteering programs and sustainability education. This project will provide suggested KPIs to measure the success of the programs and participation as well as the current safety measures at work i.e. standard operating procedures etc. For instance, the KPI "Total annual Community Service hours contributed by employees (hours)", is based on contributing added discounts to the goods that employees can buy from Stern Produce at cost, in relation to the number of volunteering hours dedicated in a time period. Example: 10, 20, 40, 60, and 80 volunteering hours equates to a discount of 5%, 10%, 20%, 40%, 50% respectively.

The project team determined that the biggest impact Stern Produce has on the community is through the Arizona Fresh Together program and through donations to the community (see Section 4). Community impact would be measured in value to the local economy as clients buy more local goods and the economic value of goods donated to charities and animal farms. Currently, these donations are not explicitly tracked in terms of weight, quantities or dollar values. Selecting KPIs to track these efforts will create social and brand value as Stern Produce can transparently report their involvement. Prospective community efforts would be through the aforementioned employee civic engagement and volunteering programs under organizational continuity sustainability focus area that would also be covered in identifying KPIs.

Lastly, Stern Produce operations over all locations would fall under the Earth tenet. The Earth tenet is naturally a necessity to sustainability, the project team mostly approached it as an eco-efficiency tactic of determining the carbon, water and waste footprint. This would involve tracking utility use and waste produced. However, Osgood envisioned waste diversion as a strategy that creates new value and business opportunity, and so, Resource Recovery was the term chosen instead. Resource recovery would entail diverting waste from landfill by having recycling contracts for recyclable material and community relationships to donate salable and non-salable food (see Section 4). Prospectively, composting may be an option either as a waste management contract or a potential venture by Stern Produce.

Subsequently, the indicators that capture and convey these areas of interest were identified. As discussed in Section 5, a selection of KPIs were provided to the Stern Produce management in the Google Form surveys. Depending on the responses, the project team will design the formulating pathways around the processes followed by the management team. In doing so, the project team aims to ease the employees into the sustainability reporting process using familiar processes.

B. Stern Produce Key Sustainability Goals

The sustainability focus areas do not function as goals, but can advance the company's aspirations. As the project team reviewed the OGC sustainability report, it became apparent to Osgood that overarching, action-oriented goals were necessary to guide the sustainability focus areas unique to Stern Produce. The OGC had defined five goals pertaining to carbon neutrality, waste elimination, farm sustainability, workplace quality and food system activism which "give [them] targets to strive towards acknowledging [their] understanding of the entire food system that [they] exist within" (OGC, 2016). Based on the regenerative business model and sustainability mission statement, Osgood transcribed four aims that reflect their current efforts in the realm of sustainability and future ventures. Stern Produce's four sustainability goals pertain to how the company could be:

- impacting hunger in local communities,
- fostering a healthy workplace,
- strengthening the local food system, and
- resource recovery and moving towards zero waste (Appendix 8-B).

Stern Produce sustainability focus areas would then feed into these goals. Figure 4 illustrates the linear progression of attaining measurements to ultimately making the company more sustainable as per their values.

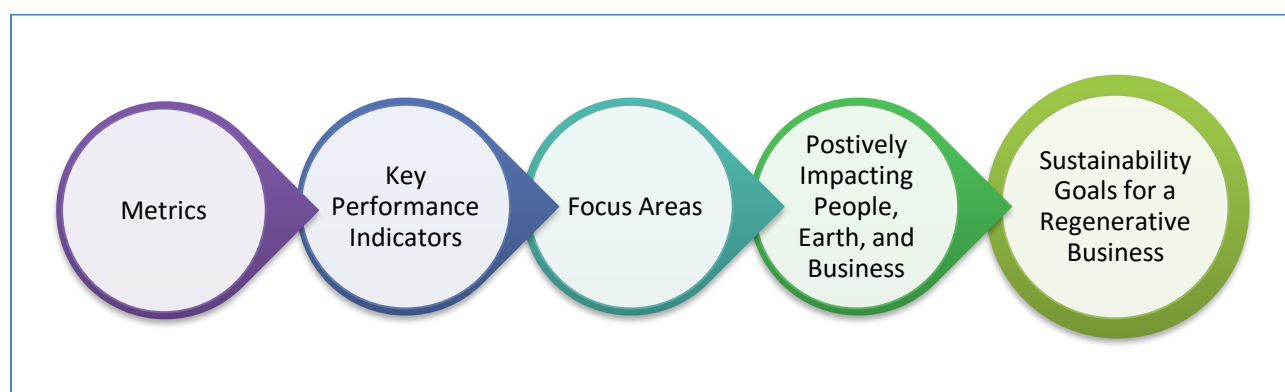


Figure 4. Progression scheme of actions to make Stern Produce more sustainable.

Thus, Figure 5 was produced to visually illustrate the holistic connection between the sustainability goals and the sustainability tenets and respective focus areas. Figure 5 is still a work-in-progress and can be further improved in the future.

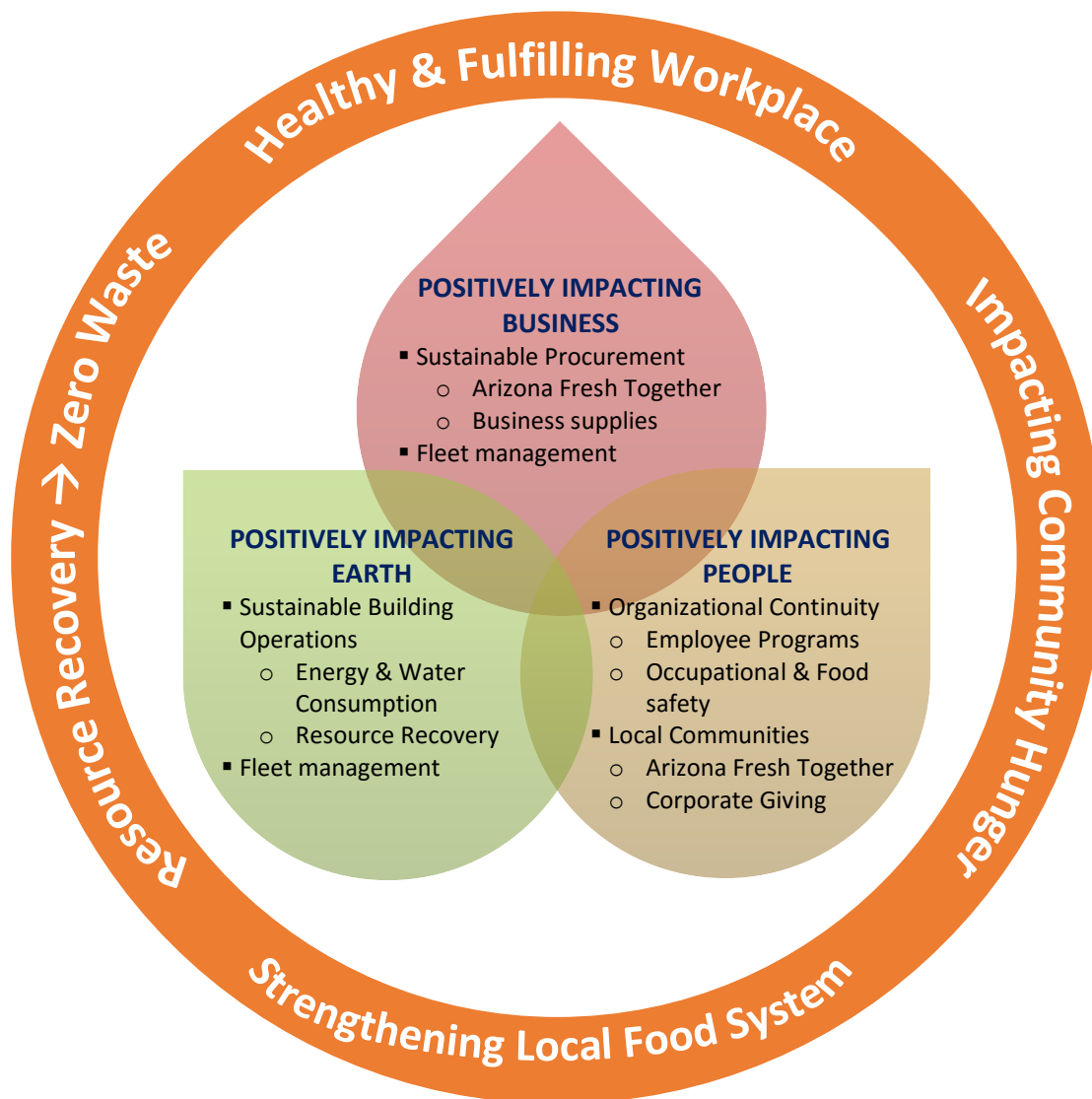


Figure 5. Stern Produce Sustainability Tenets inclusive of the long-term Sustainability Goals in the outer ring.

C. Post-Survey Key Performance Indicators (KPIs) Selection

As reiterated, the selection of KPIs will be derived to measure the sustainability focus areas of impact. The Stern Produce management team responses to the survey were not as desired, though weak responses were anticipated. Nonetheless, the minimum response of selecting the ideal KPIs for Stern Produce was achieved. The challenge was then to outline the method to fill in the indicators without the fully disclosed information of the process Stern Produce would typically use. There is also the difficulty in identifying who should be responsible for acquiring

and filling in the numbers, especially across the three locations—though this is a least concern for the deliverable. Additionally, data collection was supposed to ensue after the management surveys. Due to time restrictions, the project team was unable to collect the 2016 data for the resulting survey indicators in order to test the practicality of the KPIs—regardless, Osgood acknowledges and accepts the dilemma.

Moreover, several of the suggested KPIs were not being measured, nor were there the process, knowledge or tool in place to collect measurements. For instance, certain KPIs required weightage of cases that hold the products—i.e. weight of salable goods donated to foodbanks (kg/unit or kg/case)—but this requires a pallet scale which is too costly and not considered necessary for the business operations. Thus, estimated weights of cases would be used instead since they rely on the industry average of 20 pounds per case regardless of what the product actually is. Accordingly, the cost of the product will be determined on these estimated weights and could be used to file for charity tax deductions. As effectively as possible, recommendations will respectively be made to address incapacity. Furthermore, the report has purposely excluded additional financial profitability indicators as Stern Produce can select them at their own discretion in the future i.e. annual net profit, percentage revenue by product line etc. Nevertheless, some of the selected KPIs do depend on money values, thus the financial value, spending or savings has not been avoided completely. Refer to Appendix 8-C for a list of recommended KPIs assessing the sustainability focus areas for Stern Produce. Certain KPIs are newly introduced and so employees most likely require training as to how to measure performance under the sustainability focus areas, as well as coached to detect gaps that could be included in the evaluation process.

D. Sustainability Recommendations using the Sustainable Value Framework (SVF)

As stated in Section 5 Project Approach, the recommendations to the company will be framed using the SVF to identify sustainability drivers and suggesting strategies to achieve sustainable corporate outcomes (Fig. 5). Hart and Milstein's Sustainable Value Framework (SVF) (2003) is a multi-dimensional diagnostic tool that can assist a company in determining whether current strategies have the capacity to generate sustainable value. As Fig. 5 illustrates, none of the Stern Produce activities are rated as institutionalized as several of the efforts are established. These established efforts—or lower—are not embedded into their business model or fully developed to the extent of achieving its maximum potential as some processes are done with little value-creation for the business as well as for the staff. The stars on the SVF (Fig. 5) indicate the degree of strategic execution based on the impact and maturity of the sustainability efforts (Section 5 D). Thus, the SVF is diagonally skewed internally on pollution prevention and externally on sustainability visioning, signifying the risk of greenwashing without the performance and measurable results to support sustainability claims. Moreover, several of the plotted strategies on the right side of the SVF matrix arose due to Osgood's involvement in Stern Produce.

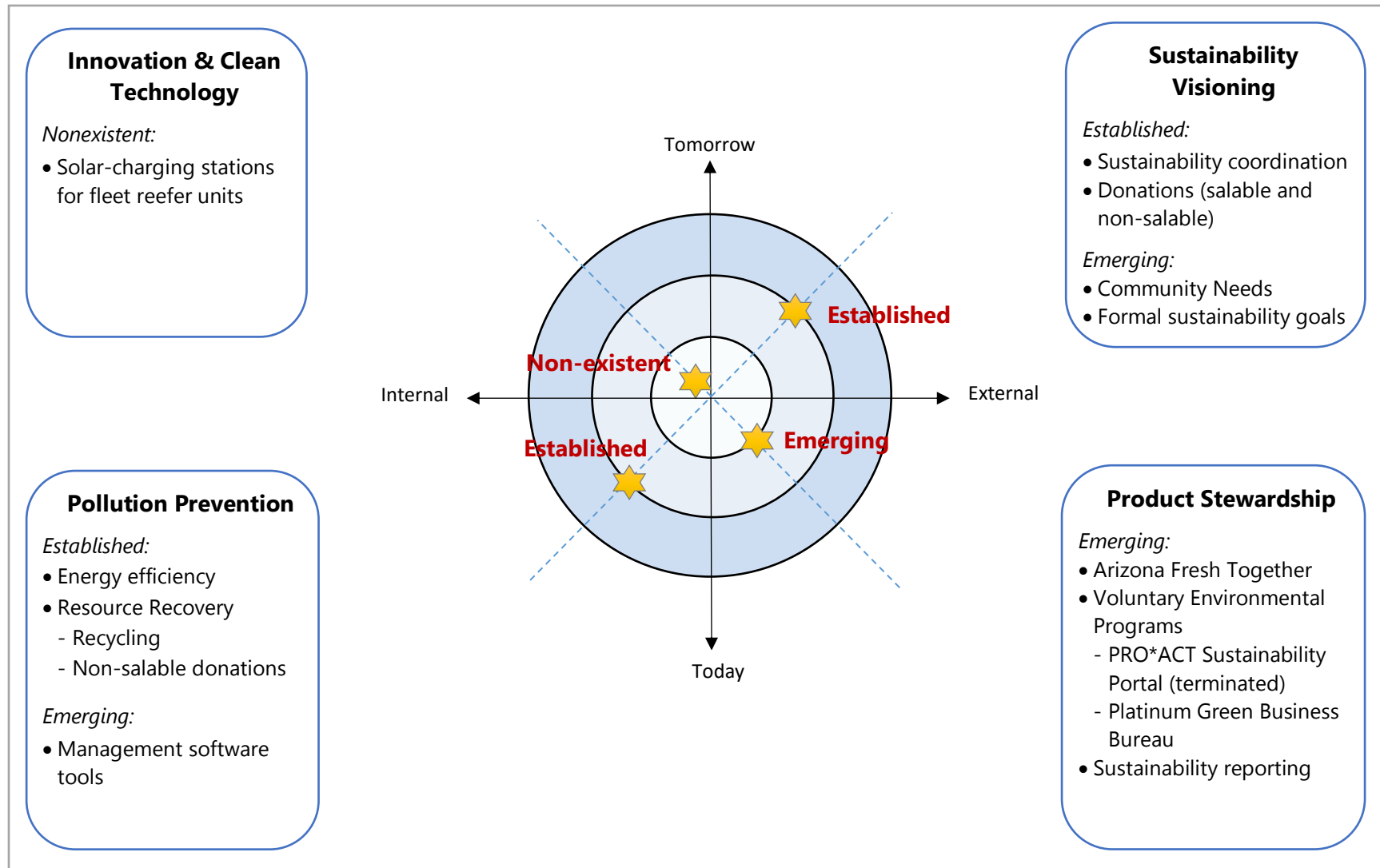


Figure 6. Mapping of Stern Produce on the Hart and Milstein's Sustainable Value Framework (2003).

Pollution Prevention: Improving Profits and Reducing Inefficiencies

Pollution prevention is focused on source reduction, which is not typically something Stern Produce can control since they offer the service of distribution and does not have the scale to dictate what materials their producers provide their goods in. However, Stern Produce does have a paper/cardboard recycling contract for Phoenix. Tucson delivers their cardboard waste to Phoenix depending on the route and Flagstaff has insignificant waste outputs—the challenge here is estimating the allocated recycling waste, based on location, using the office area. Prospectively, Stern Produce could switch to a more environmentally-friendly repacking plastic or material when cost-efficient. In terms of waste prevention of goods, Stern Produce has long been donating their non-salable food to charities and the rest to animal farms. Thus, the business is mapped as “established pollution prevention” on the SVF since these efforts and energy efficiency in business operations and fleet management have been longstanding (Fig. 5). Nevertheless, Stern Produce can take a step further to gain more value from actually tracking donations in a transparent manner, which is not currently done. By valuing the cost of goods donated, the company can determine their waste diversion rate and costs avoided to directing waste to landfill, as well as get tax write-offs. Additionally, according to Osgood, in early 2017 Stern Produce has initiated implementation of essential software applications that are typically used in the warehouse and logistics industries i.e. logistical routing system, Warehouse Management System (WMS) and Customer Relationship Management (CRM) software (see Section 4). Such tools assist companies in being more efficient and can simultaneously track performance; however, the value is still yet to be seen until it is fully utilized. Anticipated results include: reduced fuel consumption from efficient routes and reduced waiting times; better warehouse movement of goods so there is less food wastage and economic loss; risk reduction from improved storage, distribution and food safety; smarter client relationships and analysis etc. For instance, when Osgood was filling in the annual water consumption details into the PRO*ACT sustainability portal, she noticed an irregular jump in usage which was eventually correlated to a leak on the premises; by tracking consumption, unnecessary usage could be tracked and pollution prevention undertaken earlier.

Moreover, the management meeting illuminated some interesting discoveries. For instance, one participant that mainly oversaw the packaging waste was unaware that the recycling service only treated mixed paper and corrugated cardboard waste. Consequently, the employees had been contaminating the recycling with other recyclables such as metals and plastics under the assumption it was single-stream recycling—this could be in vain since the recycling company may just dispose of all the recycling from Stern Produce if it was untreatable. Thus, clear directives and standard operating procedures (SOPs) for waste handling must be communicated in order to achieve the most of their expenditures and environmental actions. Through the course of the project, it became apparent that Stern Produce would most likely benefit from having a quality management system to address such gaps in their operations. Having formal SOPs for Stern Produce processes would be part of quality management, as well as policies that regulate

quality assurance, documentation handling, and procurement (US EPA, 2001). SOPs for new and overlooked processes can bolster the existing SOPs that address the longstanding, integral procedures like occupational and food safety. This suggestion is not advising to have a legitimate system established, nor becoming certified with systems like the ISO 9000 internationally accepted quality management standards; but, rather execute certain practices for more efficient corporate functioning. Added systematic procedures help management and internal communication, particularly with new staff (US EPA, 2001) as Stern Produce seeks to grow. In Osgood's case, she was frequently being informed of aspects as they arose, which may have led to missed opportunities or hasty efforts (see Section 4A). Furthermore, it is strongly advised to adopt a procurement policy for their business supplies to ensure certain guidelines are followed and kept i.e. purchasing materials with third-party assurance of recycled content or environmentally-friendly manufacturing and end-of-life. Having a procurement policy would satisfy the Sustainable Procurement sustainability focus area and support the aim of waste aversion (Section 6A, B).

Another such opportunity Stern Produce can look into is composting of goods that cannot be donated or instead of being landfilled. Osgood had been working on a partnership with a composting contractor, though the costs of the service were restrictive. On the other hand, during the management meeting, the discussion of the possibility of composting Stern Produce's and customer's organic waste emerged as a potential service the company can provide. This service could provide additional revenue if the return-on-investment and interest from partners can justify the venture's costs. Such a composting program can be initially piloted on their Phoenix lot, partner farm, or with the City of Phoenix—this could be an NGO or academic study as well. Overall, these attempts will gradually institutionalize pollution prevention, particularly when staff will be responsible for tracking performance using sustainability KPIs.

According to Osgood, incentivizing pollution prevention at Stern Produce was explored. The success of this project's outcomes depends on the employee involvement and so, it is advised to pursue an incentive scheme in the future where departments are rewarded for attaining targets or significant internal resource reduction. The project recommended KPIs would track performance and be used to indicate which department have made the most progress and cost savings. Accordingly, the departments may compete for an increased bonus or added deduction to the discounted produce program for employees, where the cost savings would compensate for the cash incentive. An incentivized approach forces departments to be accountable for the outcomes of their actions and encouraged by short-term wins (or losses) with achievable sustainability targets. This strategy also facilitates institutionalization of pollution prevention as routine can be habit-forming, especially if actions translate into milestone results (Hoffman, 2008).

Product Stewardship: Improving Transparency and Relations

Product stewardship “offers a way to both lower environmental impacts across the value chain and enhance legitimacy and reputation by involving stakeholders in the conduct of ongoing operations” (Hart & Milstein, 2003). Stern Produce is largely emergent in this area. Arizona Fresh Together (AFT) is driven by connectivity with local partner suppliers, with the aim to provide quality and/or sustainable goods and stimulate the local economy. Though, AFT is still very much a new program and the results from reduced food miles and consumer requests for local and conscious food is impossible to observe and evaluate this early. Thus, it is necessary for consumption of this service be tracked in order to prove that the demand sufficiently contributes to the local economy.

Stern Produce’s current sustainability self-assessment tools (termed as Voluntary Environmental Programs (VEPs))—the terminated PRO*ACT sustainability portal and the GBB certification—rate very low as product stewardship opportunities. Under Stern Produce’s circumstances, VEPs like the GBB are useful for legitimately indicating to the public that they are concerned for the environment and have taken voluntary steps towards reducing impacts, thereby increasing stakeholder value as a food chain actor invested in the environment (Hart & Milstein, 2003; Kurapatskie & Darnall, 2012). Though, Stern Produce has not even added the GBB Platinum badge on their main website for public viewing. In reality, such tools can be considered to be pollution prevention actions since they are mostly internalized and focused on efficiency. However, this project is aiming to extend the reach to external stakeholders in the food chain i.e. local suppliers and consumers. Via sustainability goals and focus areas, the performance tracking is going beyond environment, and seeking to establish analysis of trends observable from this project.

While reviewing distribution in the food industry CSR reports, the US EPA SmartWay Transport Partnership program stood out as a VEP that assists and acknowledges progress towards a greener logistical supply chain. The open program is a platform where partners can register to use the free carbon accounting and reporting resources, allowing the US EPA to audit the data and promote/award the company in recognition of accomplishments made. As a SmartWay Shipper, Stern Produce could “partner with EPA to measure, benchmark and improve logistics operations so they can reduce their carbon footprint” (US EPA, 2017). For instance, in 2005, the US EPA assisted a small Whole Foods distributor in Indiana in retrofitting 20 trailers to be more aerodynamic, projecting a 4% savings on fuel costs at \$42,328 saved per year and reducing CO₂ emission by 186 tons a year (US EPA, 2006). Stern Produce would also have the freedom to use the SmartWay logo on their US EPA SmartWay-approved trucks to demonstrate to the stakeholders and competitors their investment in improving their service (US EPA, 2017). Such a program enhances legitimacy and reputation by participating and tracking performance, which should be more straightforward with the new route planning management software being introduced at Stern Produce. This suggestion has already been introduced to Osgood and is being seriously considered after briefly discussing the program with a SmartWay representative.

Before the project launch, the available information on Stern Produce was limited. Reviewing other PRO*ACT distributor partners' websites and CSR reports highlighted the need for greater transparency to build Stern Produce's brand. The Stern Produce website is typically not the client-facing platform, but it can propel business if strategized correctly, especially with new endeavors currently being taken. For instance, the AFT booklet is currently provided as a pdf-file link and includes the sustainability mission statement, the importance of local food to the economy and AFT partner profiles. None of this information is directly accessible on the webpages, and thus easy to miss the hyperlink. The three locations even have their own individual LinkedIn pages despite being a single company. Osgood has acknowledged these dilemmas and has applied for external funding to increase Stern Produce's capacity to strengthen branding via employing a marketing professional, preferably with graphic designing skills. By attaining additional funds to enable strategic marketing, Stern Produce could focus on improving the website on being more inclusive of the AFT program, but also on consolidating the LinkedIn profiles and being more active on their Facebook page. The LinkedIn and Facebook profile content manager could possibly curate sustainable food system and lifestyle information for the public and promote local produce through succinct media forms. Even while formulating the sustainability focus areas, it became clear to the project team that a strong narrative was crucial to instilling and consistently communicating the significance of sustainability, internally and externally (Hoffman, 2008). A marketing specialist would be able to strategically incorporate sustainability into the company beyond the capacity of the project team, through narrative and graphics. Moreover, Stern Produce's community involvement could be emphasized publicly as it isn't apparent that Stern Produce donates, or even articulate what they have been doing to deter truck accidents.

Another way to enhance reputation is through sustainability achievement awards in the food chain and distribution industry. For instance, PRO*ACT distributor partner Piazza Produce has acquired green accolades for their zero-waste efforts. In 2014, Food Logistics awarded Piazza Produce the "Top Green Provider" in recognition of composting and recycling corrugated cardboard, "plastic stretch wrap, colored plastic pallet straps, colored plastic wraps, plastic pallet slip sheets, Ag-Poly corner boards, wooden pallets, and other materials" from landfill, corresponding to 97.5% waste diversion, with the remaining being sent to a waste-to-energy facility (Pucciarelli & Lutocka, 2015). Through sustainability goals, this feat was facilitated by several of the partnerships (pallet boards, cardboard, Styrofoam, composting) Piazza Produce had fostered to affordably handle or reuse the waste. This company example is introduced to exemplify that zero waste is possible under the right circumstances and management as well as something to aspire towards, especially if the result can be praised in the food distribution industry.

Despite aiming for increased stakeholder integration, this project was conducted with little stakeholder engagement. Thus, it is recommended for Stern Produce to conduct a materiality assessment. The GRI reporting guidelines require the sustainability report to reflect stakeholder

interests in relation to sustainability of the business, environment and society. A materiality assessment accounts for the high or low degree of stakeholder sustainability interests unique to the company on a materiality matrix (Thinkstep, 2015). This recommendation may not be as rigid as typically expected for reporting purposes, but rather allows for a discussion with employees and first-tier partners on the project team's sustainability goals and focus areas. Such discussions can highlight new opportunities for improvement or risks as well as legitimizes involvement in the process and sustainability vision (Hoffman, 2008; Thinkstep, 2015). Refer to Appendix 8-D for an example of a simplistic materiality matrix from Arla Foods' sustainability report (2015). Furthermore, based on the degree of importance to Stern Produce stakeholders, the indicators measuring the performance of those aspects could be graded a higher value. By assigning a range of value points to the indicators, the KPIs could be weighted on the scale and aggregated respective to the outcome. Alternatively, Stern Produce could assess their sustainability based on what matters the most to them. Ideally, promoting product stewardship (or rather, service stewardship) and stakeholder involvement is integrated in the regenerative business model, where "changes are immediate and value is realized quickly in the form of improved community relations, legitimacy, and brand reputation" (Hart & Milstein, 2003), and thus, reposition from emerging to institutionalizing product stewardship.

Clean Technology: Fostering Innovation

Clean technology and innovation refers to "internal business innovations that 'leapfrog' widely accepted industry routines and knowledge" via "radically new products and business models" (Kurapatskie & Darnall, 2012). Based on Stern Produce's service and limited upfront capital, the opportunities were quite limited. Renewable energy sources such as solar was explored by Stern Produce but the return-on-investment was negligible. The project team also considered alternative fuels for the distribution fleet (i.e. biodiesel), however Arizona does not have the infrastructure nor the supply widely available to ensure consistent delivery. Additionally, Stern Produce's COO's past experience with alternative fuels in another company was not effective or efficient. Moreover, the trucks are leased on contract and so there is limited customization opportunities. Thus, Stern Produce is mapped as nonexistent on the SVF's clean technology strategy.

The most viable attempt for clean technology is for Stern Produce to invest in a solar-powered charger for their electric refrigeration (reefer) units atop the truck cabin (Fig. 5). Typically, truck reefer units are powered by a diesel engine. According to Osgood, Stern Produce had purchased electric reefer units that required specific electricity charge transmission connections at the Phoenix facility that could not be provided by the Salt River Project (SRP) utility company without massive changes and costs that would negate the purpose of using them. Thus, instead of trying to charge the electric reefer units from the grid, Stern Produce can try off-grid charging. Osgood is exploring whether a solar-powered device could charge a battery that would power the electric reefer units. This solution does not truly offer any repositioning to the

company under the SVF, but it at least offers a novel alternative to reduce energy use by clean means.

Nonetheless, Osgood's regenerative business model and goals seeks to move towards closed-loop operations. By tracking Stern Produce's sustainability performance, this project anticipates employees or management being motivated by weak performance to be more resourceful and innovate current processes to reduce waste and conserve resources. As introduced in the SVF product stewardship strategy, Piazza Produce has been able to achieve zero waste goals within their means. Thus, it may not be the right circumstances for Stern Produce at the moment to acquire more recycling or reuse partnerships, but it is highly recommended that Stern Produce interacts with diverse industry actors, collaborate to maximize resources and expand capacity, but also encourage employees to experiment to determine new solutions.

Sustainability Vision: Sustainable Growth and Manifesting a Regenerative Business

Hart and Milstein (2003) defines the sustainability vision strategy to facilitate "competitive imagination by creating a shared roadmap for tomorrow's business provides guidance to employees in terms of organizational priorities, technology development, resource allocation, and business model design". This project has strived to do exactly that in weaving the sustainability focus areas and respective KPIs to the sustainability mission and goals using the regenerative business model under Osgood's vision for the company. Thus, having a sustainability coordinator institutionalizes sustainability as part of its business strategy, but the new ventures and staff buy-in have yet to convey success of the vision. And so, the company is still emerging on the community focus front since the only established efforts were the philanthropic food donations—which isn't really a strategy in the true SVF business growth case. The donation of salable goods does address food insecurity, which is a major concern for the 17.1% food insecure in Arizona, higher than the national average of 15.4% (2014 data) (Feeding America, 2016).

The management meeting revealed that the COO was highly interested in implementing capacity-building workshops for suppliers on how to be effective at handling their business since the producers seem to have diverging attention and use of resources. It is recommended for Stern Produce to partner with well-established local agencies that conduct such workshops already in the counties or Phoenix and Arizona and tailor programs to suit the producers i.e. Local First Arizona, the Arizona Small Business Development Center network etc. Additionally, partnerships to address food deserts in the Phoenix-metropolitan area should also be tackled. Osgood and Stern Produce have been deliberating how to maneuver food deserts as new markets and have considered offering local businesses a farm-to-door fresh produce offerings, much like Community Supported Agriculture (CSA) programs.

Additionally, sustainable growth of Stern Produce would entail the sustainable growth of their partners. Osgood envisions offering her sustainability expertise as an added service from

Stern Produce to partner farms, perhaps even customers, that would improve their business. By doing so, Stern Produce is proactively engaging with the community that would not have had the capacity to improve efficiency and reduce ecological impact without significant expenditures. Osgood would be providing an external outlook yet still be a trusted partner with best interests to both sides in mind.

In the context of community focus, Benefit Corporation and Certified B Corporation provisions were explored to see how Stern Produce could tie positive impact aims into their business as a S Corporation. As per the Internal Revenue Service (IRS) special S Corp tax status, domestically-owned Stern Produce avoids double taxation on corporate income as only the shareholders share the federal taxes on Stern Produce's income, losses, deductions, and credits (IRS, 2017). Even if Stern Produce were to consider Benefit Corporation or Certified B Corporation status it would still be classified as an S Corp as the IRS doesn't categorize B Corps in the Internal Revenue Code and thus, does not impact the federal tax status (Sampselle, 2012). Regardless, if Stern Produce were to wholly operate for-profit with positive social and ecological impact goals, the B Corp certification would be ideal for the company if they wish to just assess (via B Impact assessment scorecard) and publicize their efforts. On the other hand, if management desired state-level legal recognition, the legally state-binding Benefit Corporation structure would be appropriate for institutionalizing the social and environmental mission at a fiduciary level (Sampselle, 2012). Either way, both routes demand accountability to the mission, transparency, and annual performance reporting in achieving the mission (to the state or certification body) and can be enrolled in both. See Appendix 8-E for the difference between Benefit Corporation and B Corporation certification.

An alternative tactic to institutionalize the regenerative business model into Stern Produce is to consider integrated reporting rather than an independent sustainability report. Integrated reporting is derived from the integration of a company's business model with sustainability approaches, hence, sustainability is always considered in corporate decision-making and creating sustainable value. Value is "increasingly shaped by factors additional to financial performance, such as reliance on the environment, social reputation, human capital skills and others" (EY, 2014). Thus, an integrated reporting framework goes beyond the compliance-based financial reporting of a company and holistically considers environmental, social and governance (ESG) factors. Thereby, cogent information about the company's activities and performance is communicated to investors and stakeholders (EY, 2014). This concept was brought forward to the COO at the management meeting. The concept was received well and is considered as a potential pathway in the future—the focus here is on the integrated business model rather than the reporting framework. Additionally, the integrated process is more inclusive of all employees, rather than just a select few who would be responsible for reporting the sustainability indicators.

7. Conclusions and Future Directions

Small companies like Stern Produce can still have significant impact on society, environment and local economy, despite not having the same reputation or branding as a large multinational food chain actor. This project aspired to establish a sustainability reporting scheme or process for Stern Produce while simultaneously building internal buy-in for sustainable practices. In doing so, the project team and company are expecting increased efficiency in operations such as lower energy use as well as more collaboration between departments from communicating about the data required for this project. Additionally, cost savings are anticipated from increased efficiency as well as increased transparency from quantifying the inputs and outputs.

In the long-term, a reduction in risks, carbon footprint and other undesirable outputs such as waste are desired. For sustainable future growth and decision making, Stern Produce will consult the sustainability goals, focus areas and recommendations highlighted in the project analysis. Ultimately, Osgood hopes to have annual sustainability reports to communicate their efforts and positive impacts on their business and community by the 2018 fiscal year. To accomplish this, Osgood intends to seek two or even a class of students to create a complete and comprehensive sustainability report and system.

8. Appendices and Acknowledgements

A. Stern Produce Arizona Fresh Together (AFT) Program



Left: Stern Produce Sustainability Mission statement in the Arizona Fresh Together Booklet. Right: Map of Arizona Fresh Together local suppliers (Stern Produce, 2017).

B. Stern Produce Sustainability Goals

Table. Stern Produce Sustainability Goals towards impacts inclusive of partners involved and results (Source: Kristen Osgood).

IMPACT	PARTNER(S)	RESULTS
Impact hunger in our communities	<ul style="list-style-type: none"> ▪ St. Mary's Food Bank ▪ 7th Street Food Pantry ▪ LBCC4K 	<ul style="list-style-type: none"> ▪ Logistics support ▪ Product donations
Foster a healthy and fulfilling workplace	<ul style="list-style-type: none"> ▪ Green Business Bureau ▪ Arizona State University ▪ PRO*ACT Sustainability Assessment 	<ul style="list-style-type: none"> ▪ Platinum certification awarded 2016 ▪ Creation of baseline sustainability metrics and reporting (to be completed May 2017)
Strengthening the ties between our local	<ul style="list-style-type: none"> ▪ Creation of Arizona Fresh Together 	<ul style="list-style-type: none"> ▪ 17 Local Vendors ▪ 14 Farms including dairy and meat

farmers, customers, and communities		
Focus on Resource Recovery and move towards Zero Waste	<ul style="list-style-type: none"> ▪ St. Mary’s Food Bank ▪ Local Animal Farmers ▪ Recycled City ▪ Local waste businesses ▪ Reuse purchases 	<ul style="list-style-type: none"> ▪ Food donations ▪ Food waste to animal feed ▪ Composting ▪ Cardboard recycling program ▪ Office recycling

C. Recommended Key Performance Indicators (KPIs) for Stern Produce.

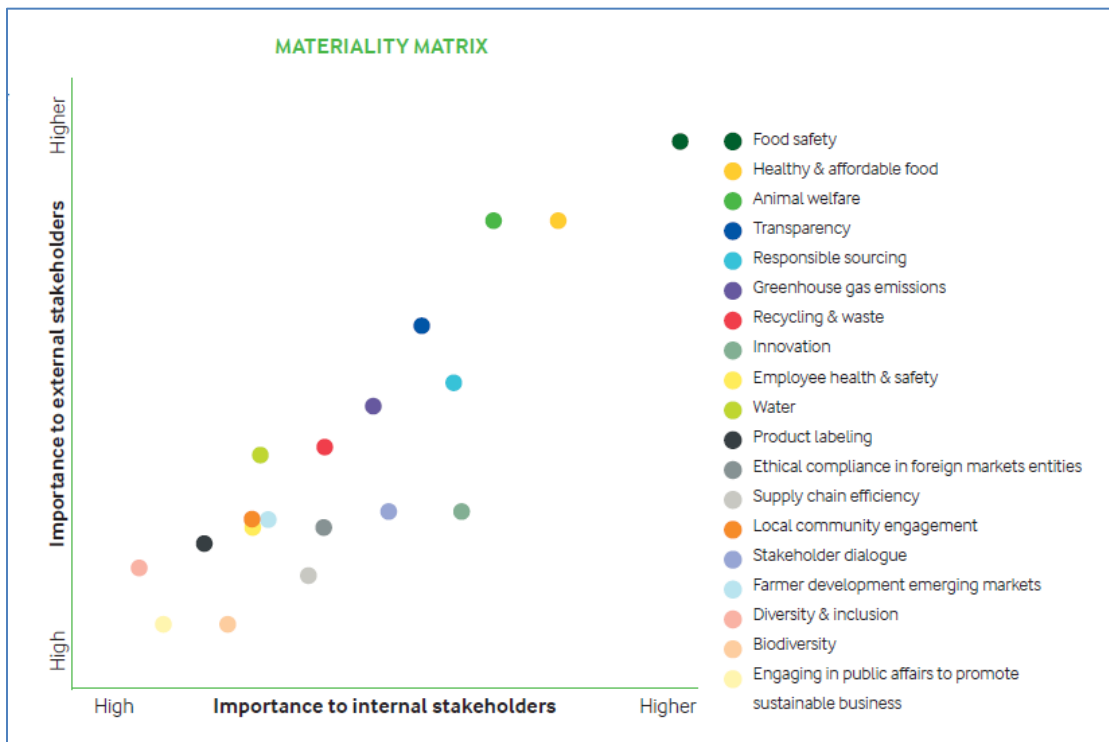
(Asterisks (*) signify KPIs created for future ventures.

#	Sustainability Focus Areas	Potential KPIs & Metrics
1		BUSINESS
1.1	Sustainable Procurement	
1.1.1	Local Commodities (i.e. produce)	
		Percentage of commodity supplied from local sources (%)
		Percentage of certified organic produce procured (%)
		Percentage of total food sales from certified organic products (%)
		*Percentage of seafood supplied which is certified by the Marine Stewardship Council (or equivalent) (%)
		Percentage of certified sustainable produce procured (%)
		*Percentage of cage-free eggs on total number of egg products sold (%)
1.1.2	Business office operations	
		*Average percentage of purchased office and facility supplies with recycled content (%)
1.2	Fleet Management	
1.2.1	Efficiency and Routing	
		Number of miles driven (day/week/month/annual)
		Average cases delivered per mile (unit/miles)
		Backhaul Case Volume (unit)
		Diesel fuel consumption (gallon)
		Cost of Diesel fuel consumption (\$)
		Motor Gasoline consumption (gallon)
		Cost of Motor Gasoline consumption (\$)
1.2.2	Fleet Safety	
		Number of delivery road accidents
		Annual Accident Frequency Ratio (AFR)
2		PEOPLE

2.1	Organizational continuity	
2.1.1	Employee programs	
2.1.1.1	<i>Civic engagement and Volunteering</i>	Number of community partnerships (i.e. food banks, charities, non-profits etc.)
		*Total annual Community Service hours contributed by employees (hours)
		*Employee participation in volunteer programs (%) <ul style="list-style-type: none"> • Number of volunteer programs in a fiscal year
2.1.1.2	<i>Education & Coworker outreach (i.e. internal health, wellness)</i>	*Number of supplementary services offered to employees (i.e. health & wellness programs, education).
		Number of staff participating in the employee purchased discount program.
2.1.2	Occupational & Food safety	
		Number of workplace accidents
		Number of road and driver accidents
		Level of third-party audited food safety and certification
2.2	Local Communities	
2.2.1	AFT (Stern Produce's local purchasing program)	See Section 1.1.1.
2.2.2	Corporate giving	
2.2.2.1	<i>In-kind Contributions to the Community</i>	In-kind contributions to the community (\$) - salable
2.2.2.2	<i>Non-salable donations (animal feed) to the Community</i>	In-kind contributions to the community (\$) - nonsalable
3	EARTH	
3.1	Sustainable building operations	
3.1.1	Energy usage – electricity & gas (Scope 2)	
3.1.1.1	<i>Electricity</i>	Total electricity consumption (kWh)
		Cost of electricity consumption (\$)
		Total facilities electricity consumption CO ₂ equivalent emissions (Scope 1 & 2) (metric ton CO ₂ eq)
3.1.1.2	<i>Natural Gas</i>	Volume of therms of natural gas used (therms)
		Cost of natural gas consumption (\$)
		Total facilities natural gas consumption CO ₂ equivalent emissions (Scope 1 & 2) (metric ton CO ₂)
3.1.1.3	<i>Total Energy</i>	*Annual amount of Energy Used per Case (BTU/1 case)
		Total carbon emissions from total energy use (metric ton CO ₂ eq)
3.1.2	Water	
		Total water consumption (gallon)
		Cost of water consumption (\$)

3.1.3	Resource recovery	
3.1.3.1	Salable In-Kind Contributions	Salable quality products donated for human consumption (\$)
3.1.3.2	Non-salable contributions	Inventory shrinkage adjustments (as tons)
3.1.3.3	Composting	*Weight of produce goods sent for composting (tons)
3.1.3.4	Recycling	*Weight of recyclable material (i.e. for each of the following: glass, plastic, paper & cardboard, metal etc.) were generated at the facility (annual tons)
		Percentage of waste recycled by Phoenix or Tucson location (%)
		Income from recycling activities (\$/year)
3.1.3.5	Landfill	Weight of solid waste (i.e., direct to landfill) generated at the facility (tons)
		Costs incurred for landfill waste disposal (\$/annual ton)
3.1.3.6	Overall Waste	Total waste generated (thousand tons)
		Annual Waste production per case (tons/case)
		Diversion Percentage of waste recycled (%)
3.2	Fleet management	
3.2.1	Fuels usage & Miles driven (Carbon emissions: Scope 1 & 2)	
		Total facilities diesel fuel consumption CO ₂ equivalent emissions (Scope 1 & 2) (metric ton CO ₂)
		Total facilities motor gasoline fuel consumption CO ₂ equivalent emissions (Scope 1 & 2) (metric ton CO ₂)

D. Arla Foods’ Materiality Matrix (Arla Foods, 2015)



E. Differences between Benefit corporations and Certified B Corporations

The Table is edited to be more pertinent to Arizona.

What's the Difference?¹		
Issue	BENEFIT CORPORATIONS	CERTIFIED B CORPORATIONS
Accountability	Directors required to consider impact on all stakeholders	Same
Transparency	Must publish public report of overall social and environmental performance assessed against a third-party standard	Same
Performance	Self-reported	Must achieve minimum verified score on B Impact Assessment Recertification required every two years against evolving standard
Availability	Available for corporations only in 30 U.S. states and D.C. (Available in Arizona)	Available to every business regardless of corporate structure, state, or country of incorporation
Cost	State filing fees from \$70-\$200. According to the Arizona Corporate Commission, as of 2015, Arizona requires filing to the Corporations Division BOTH an annual report required under A.R.S. § 10-1622 (\$45 filing fee) and an annual benefit report required pursuant to A.R.S. §§ 10-2441 and 10-2442 (\$10 filing fee) ²	B Lab certification fees from \$500 to \$50,000/year increments, based on revenues i.e. \$2 mill is \$1,500 ³
Role of B Lab	Developed Model Legislation, works for its passage and use, offers free reporting tool to meet transparency requirements; No role in oversight	Certifying body and supporting 501c3, offering access to Certified B Corporation logo, portfolio of services, and vibrant community of practice among B Corps.
Source:		
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