

*A Better World,
Through Better Business*

 **NYU | STERN**

Center for
Sustainable Business

The Business Case for Sustainable Apparel

December 2020



- 1. Executive Summary**
- 2. Project Background**
- 3. Apparel Industry Sustainable Strategies Framework**
- 4. Case Study Findings with Apparel Partners**
- 5. Review of Apparel Benefits by Strategy**
- 6. Circularity Monetization Example and Tools**
- 7. About The NYU Stern Center for Sustainable Business**

Executive Summary



Apparel companies are leveraging eight strategies to positively impact their financial performance and drive better outcomes for environment and society

- **Strategies identified include circularity and innovation, investments in employee and supplier well-being, and improving energy management**
- **Financial value accruing to companies in areas such as greater employee productivity and retention, improvements in sales & marketing, lower customer acquisition costs, and reduction in transportation costs**
- **One company found a \$1.6M in annual savings by prioritizing lower carbon distribution methods; another identified \$34M in annual savings from investments in employee well-being**

Work Completed & Looking Ahead



In this presentation we share Phase 1 of our research collaboration, launching our novel Apparel Industry Sustainable Strategies Framework, several case narratives, and monetization tools.

FRAMEWORK

We built the framework around 8 strategies, housing 25 practices and 66 sub-practices.

Help companies understand which strategies and practices to prioritize

CASES

We partnered with companies on several cases linked to our identified strategies.

Provides a narrative overview and detailed accounting of our monetization method and results

TOOLS

We created 18 excel tools focused on the circularity and innovation strategy to monetize and capture benefits.

Offers practical frameworks for companies to uncover benefits at their own organizations. May feed into other industry-wide or ESG frameworks like the HIGG Index or SASB.

Future work will include building out monetization approaches for additional strategies; and developing further monetization tools and cases.

We welcome partnership on future phases of the project!

Project Background

The apparel industry faces numerous environmental challenges...



Apparel manufacturing has significant environmental impacts spanning land use, water pollution, air pollution, and bio-diversity among others.



...as well as labor and social challenges.

Apparel manufacturing faces challenges with child & forced labor, low wages in retail and factories, harmful chemical exposure, and poor safety practices among others.



The industry also faces numerous threats and disruptions



Challenges in traditional brick and mortar, the rise of ecommerce and the COVID pandemic create new challenges for the industry.



The Opportunity



Despite enormous challenges, the apparel industry is prioritizing and investing in sustainability strategies to address material ESG issues, innovate and discover new business models, and drive financial performance.

*The challenge is how to measure and quantify these investments **to assess the value of benefits that can be accrued through more sustainable business practices.***

Project Sponsor



Project Objectives

- Leverage the NYU Stern CSB Return on Sustainability Investment (ROSI) methodology to help **estimate the tangible and intangible benefits** accruing to apparel companies by prioritizing sustainability
- Develop a **comprehensive framework** that lays out the key strategies, practices, and sub-practices companies are prioritizing
- Map associated benefits, articulate monetization methods, and quantify benefits
- Develop **case studies** with partners
- Develop **tools** to help companies undertake this work at their own organizations and to feed into existing industry tools like HIGG Index or ESG frameworks like SASB or GRI



Sustainability Drivers of Financial Performance and Competitive Advantage



Improves:

- Customer Loyalty
- Employee Relations
- Innovation
- Media Coverage
- Operational Efficiency
- Risk Management
- Sales & Marketing
- Supplier Relations
- Stakeholder Engagement

Drives:

- Greater Profitability
- Higher Corporate Valuation
- Lower Cost of Capital

Delivers:

Short- and Long-Term Value Creation for Shareholders and Society

ROSI Methodology and Collaboration Process

For project collaborations, NYU Stern CSB works with company partners to implement the five-step ROSI framework process highlighted to the right

1

Identify Material ESG Issues and Strategies

Identify material sustainability challenges, and how the industry is addressing associated risks and/or opportunities

2

Assess Practices

Determine which practices have been implemented to address sustainability strategies

3

Define Benefits

Define the types of economic benefits that could be expected from the changed practices through the ROSI mediating factors

4

Quantify Benefits

Estimate the magnitude of those benefits and when they could be realized

5

Monetize

Translate the benefits into economic value, stress test, and then forecast ROI

Sustainability Drivers of Financial Performance and Competitive Advantage

When a company embeds sustainability in its strategy and practice, it...

Improves:

- Customer Loyalty
- Employee Relations
- Innovation
- Media Coverage
- Operational Efficiency
- Risk Management
- Sales & Marketing
- Supplier Relations
- Stakeholder Engagement

Drives:

- Greater Profitability
- Higher Corporate Valuation
- Lower Cost of Capital

Delivers:

- Short- and Long-Term Value Creation for Shareholders and Society

Created by NYU Stern CSB

By creating and disseminating a sustainable apparel framework, case studies in collaboration with apparel partners, and industry-specific monetization tools, NYU Stern CSB's aims to encourage the development of sustainability initiatives across the industry.

Current Participants Involved & Project Focus



With the support of HSBC, the sponsor of NYU Stern CSB's sustainable apparel project, we collaborated with corporate partners to answer a variety of pertinent sustainability-related questions, including:

- ✓ *What are the monetary and intangible benefits of incorporating and promoting a sustainably-focused corporate culture?*
- ✓ *What are the monetary and societal benefits of transitioning to more carbon-efficient transportation modes of product shipments?*
- ✓ *What are the monetary and intangible benefits of implementing and promoting circular business models (and other forms of innovation) for current and prospective customers?*
- ✓ *What are the monetary and reputational benefits of sustainably-marketed products as compared to their counterparts?*

Current Active Corporate Partners



Reformation

Research Overview



We conducted desk research and primary research to gain a better understanding of the leading apparel industry sustainability strategies. Organizations and resources consulted include:



EILEEN
FISHER

H&M



BCG

3.1 Phillip Lim

P. C. CHANDRA
G R O U P

Reformation



FUTERRA



Pratt





NYU | STERN

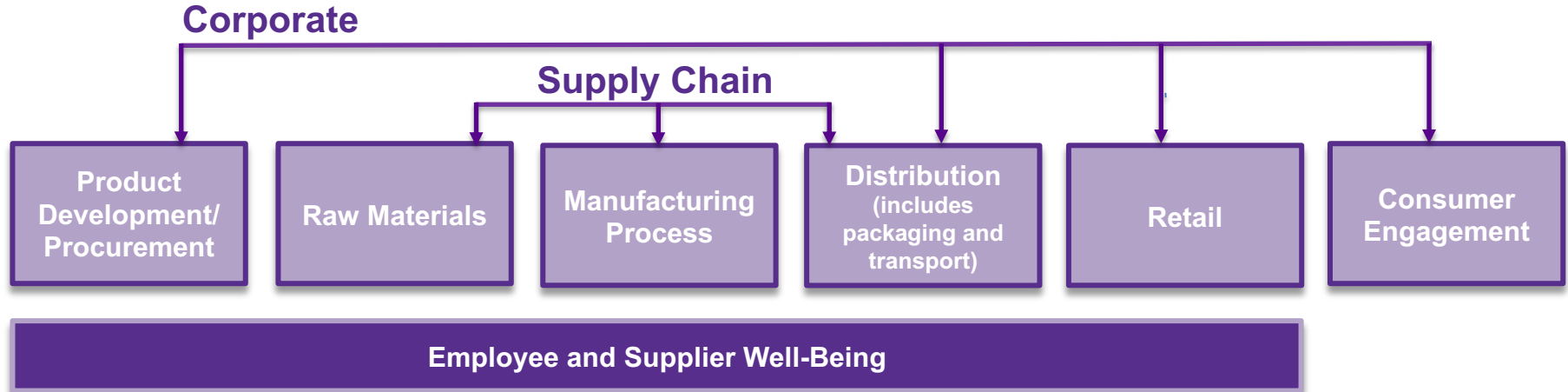
Center for
Sustainable Business

Apparel Industry Sustainable Strategies Framework

The Apparel Value Chain



We assessed apparel sustainability efforts across the value chain to determine opportunities for impactful change





Apparel companies are driving sustainability improvements using several strategies:



*Strategies highlighted in green are built out in this presentation; future work will focus on building out the remaining four strategies

Defining the Sustainability Strategies



Reducing Chemical Impact

Company reduces the impact of chemicals in its supply chain

Improving Water Management

Company focuses on water management through increased water efficiency, conservation, and reduction of wastewater quantity, while improving wastewater quality

Improving Energy Management

Company focuses on practices to decrease greenhouse gas emissions by focusing on improving energy efficiency, changing distributions modes, and increasing use of renewable energy

Investing in Reduction of Material Waste

Company implements practices to mitigate waste in areas such as fabric, consumer clothing, peripherals, and packaging

Implementing Sustainable Raw Material Sourcing

Company spurs innovation of new materials development and substitutes more sustainable materials in existing products and packaging

Investing in Circularity and Innovation

Company invests in innovation to achieve new circular business models which focus on product takeback and innovative design methods

Investing in Employee and Supplier Well-Being

Company improves labor conditions in their supply chain and across their corporate workforce through practices that directly and indirectly benefit the health and safety of the workforce

Investing in Sustainable Brand Marketing and Communications

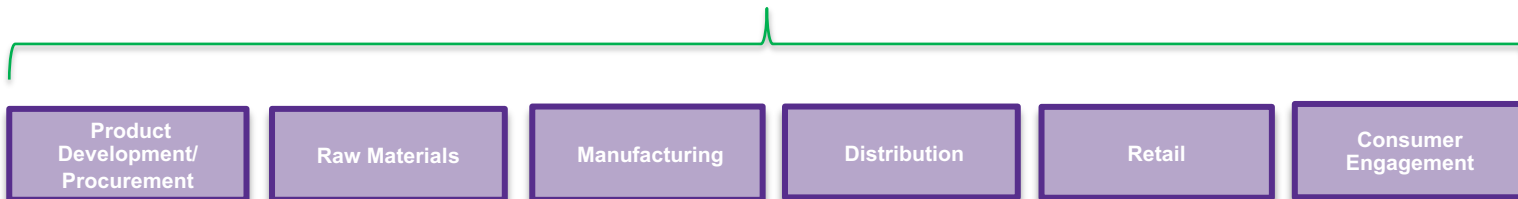
Company invests in marketing and education around sustainability through engagement campaigns and branding

Identified Sustainability Practices and Sub-Practices Framework Layout



- Through our research, we identified key sustainability practices and sub-practices companies are implementing to achieve their sustainability strategies
- We mapped sub-practices to the relevant parts of the apparel value chain
- Each strategy includes sub-practices under each relevant component of the value chain, (if not relevant to a part of the value chain, it is excluded)
- Compliance / enforcement practices are not explicitly listed in this framework but should be considered when implementing the eight strategies
- Please see diagram below of the framework layout, which is illustrated for each strategy in the subsequent slides

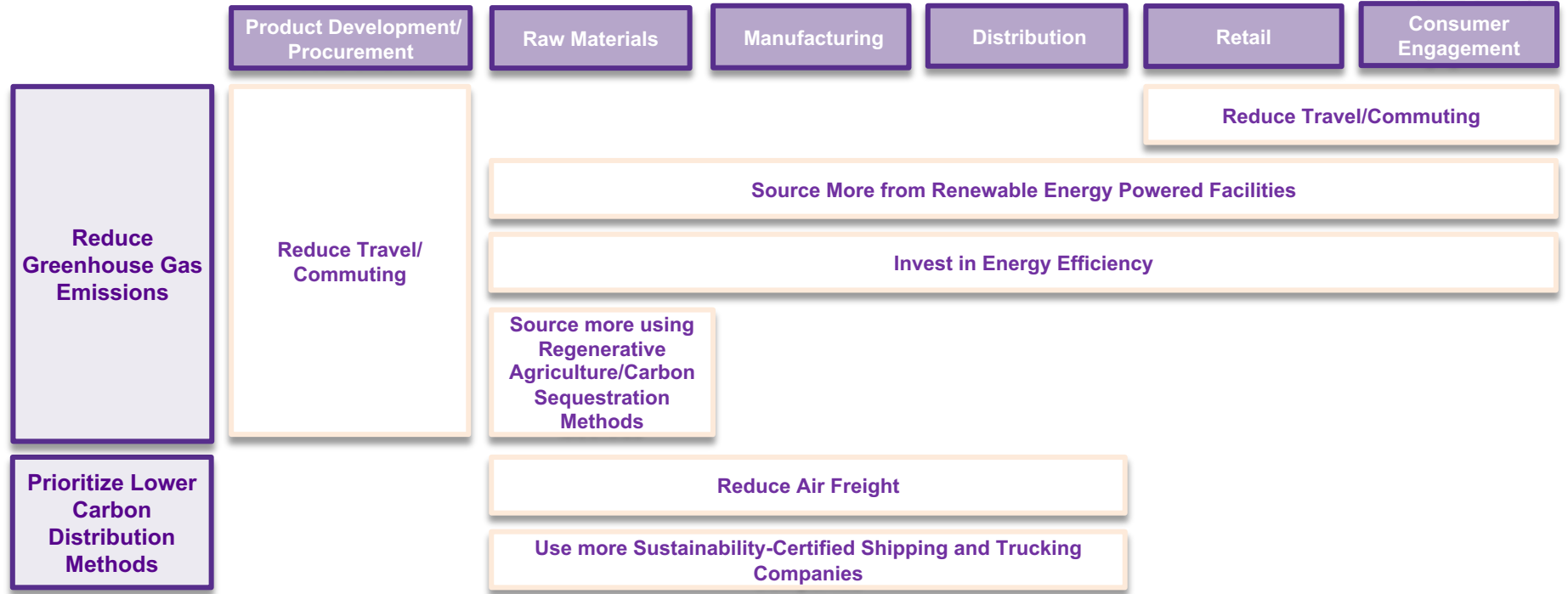
Relevant components of the apparel value chain
**Varies based on sustainability strategy*



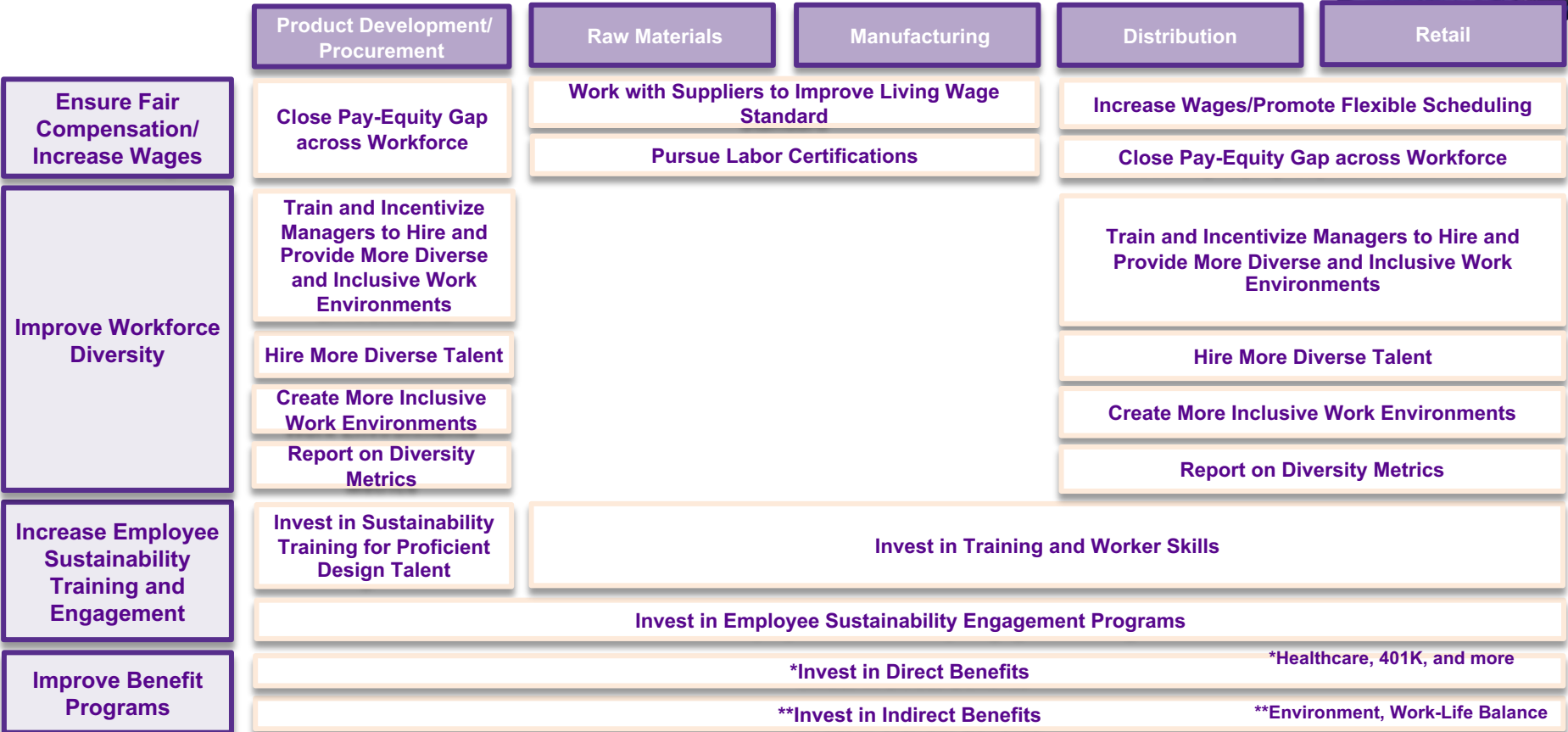
Practice

Sub-practices
**Placed underneath relevant value chain categories*

Improving Energy Management



Investing in Employee & Supplier Well-Being



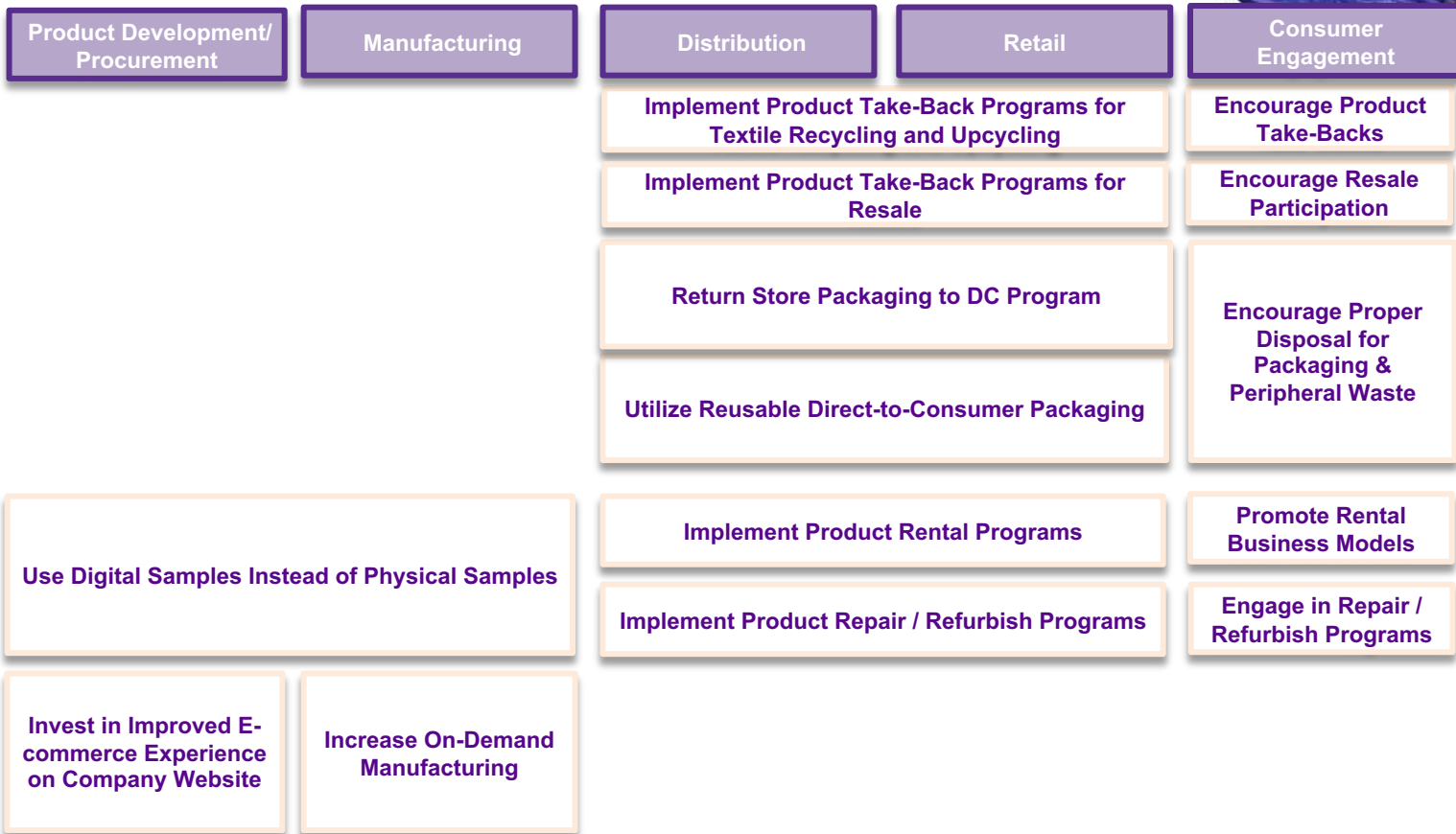
Investing in Sustainable Brand Marketing and Communication*



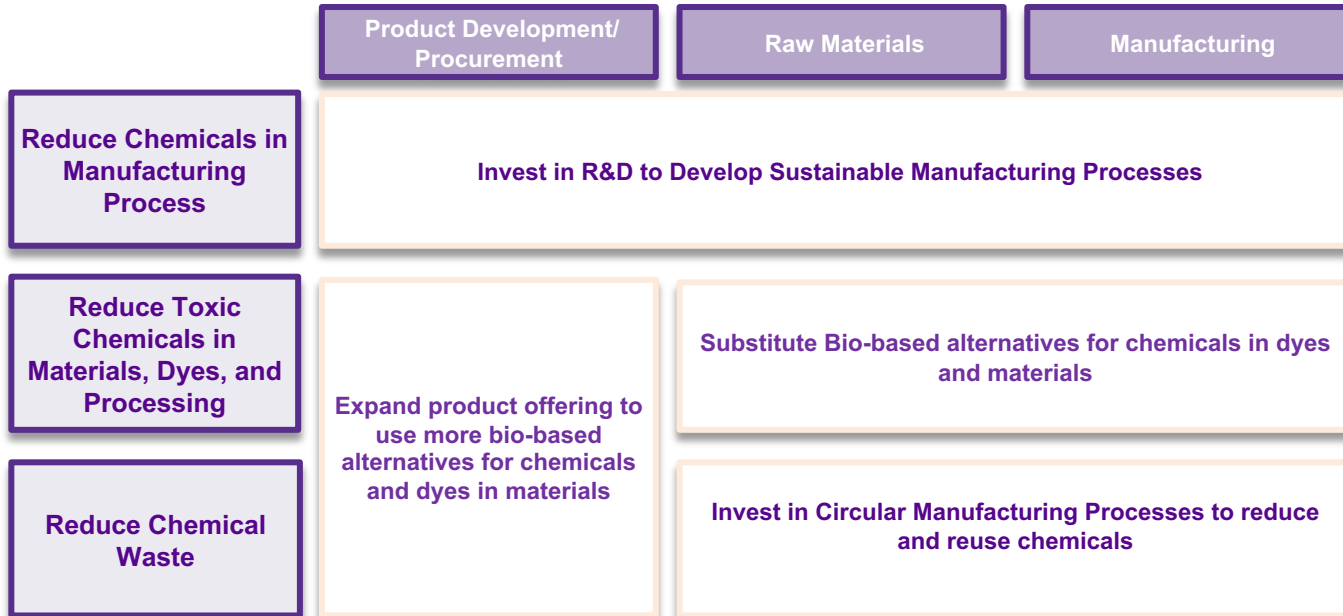
*Includes Employees, Customers, and Other Stakeholders



Investing in Circularity and Innovation



Reducing Chemical Impact



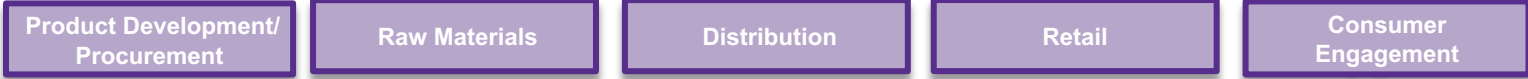
Improving Water Management



Investing in Reduction of Material Waste*



*Includes Fabric, Packaging, Consumer



Reduce Fabric Waste

Partner with Fabric Recycle and Reuse Programs for Fabric Discards

Reduce Consumer Clothing Waste

Develop Alternative Uses for Products that Do Not Meet Standards

Develop Alternative Uses for Products that Do Not Meet Standards

Reuse and Resell Non-Purchased Products/Excess Inventory

Reduce Peripherals and Packaging

Sell More Product Bundles

Improve Packaging Efficiency

Eliminate Paper Invoices (Direct-to-Consumer)

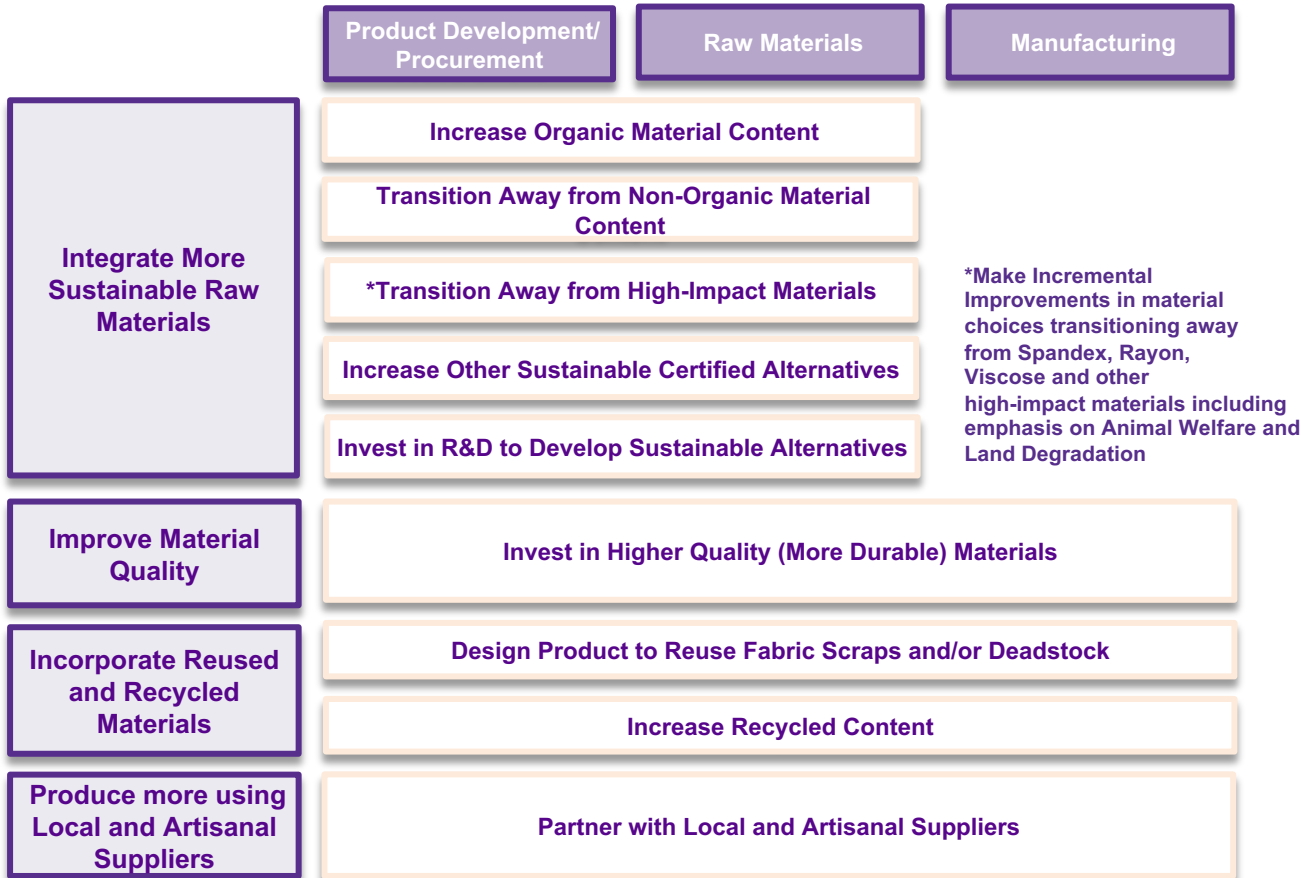
Eliminate Duplicate Packaging and Peripherals in Store

Improve Material Packaging and Peripheral Sustainability

Increase Recycled Content of Peripherals in Packaging

Invest in Biodegradable and Compostable Material Alternatives

Implementing Sustainable Raw Material Sourcing





NYU | STERN

Center for
Sustainable Business

Case Study Findings with Apparel Partners

Case Study: Investments in Employee Well-being at REI



- NYU Stern CSB recently collaborated with outdoor retailer, REI Co-op to monetize the impact of its sustainability program on employee well-being
- After reviewing benefits and costs, the following were identified:
 - **[Benefit]** Reduced turnover and hiring costs compared to industry benchmarks
 - **[Benefit]** Increased productivity due to a significant amount of high-performing employees
 - **[Cost]** Paid time off days beyond standard vacation days for all employees to volunteer or recreate outdoors
- **For 2019, the net benefit result is \$34 million***

Employee Sustainability Program Benefits and Costs for 2019

Reduced turnover and hiring costs



Increased productivity amongst high performers



Mission-aligned investments, including paid time-off days

Total net benefit of **\$34 million**

*This figure is ~5% of payroll expenses

Case Study: Monetizing Energy Management at EILEEN FISHER



- NYU Stern CSB collaborated with apparel company EILEEN FISHER to monetize progress on the company's 2015 goal of shifting its transportation mix away from air transport and towards sea and trucking transports
- The monetization analysis explored the decrease in total transportation costs and increase in societal benefit due to a reduction in GHG emissions

Transportation Cost

- Although air is the fastest transportation mode, it is also the most expensive by average unit cost of shipping
- In an effort to reduce transportation costs, from 2015 to 2019, EILEEN FISHER gradually shifted away from air and moved towards sea and trucking transportation modes
- As a result, in 2019, ***the company had spent ~\$1.6 million less in transportation costs*** than in 2015

Societal Benefit

- Although EILEEN FISHER has low total GHG emissions, a societal benefit can be generated by reducing the company's GHG footprint
- In addition to higher transportation costs, air freight also produces the most GHG emissions
- From 2015 to 2019, EILEEN FISHER consistently reduced GHG emissions by favoring sea and trucking transportation modes
 - Using \$50 per MT CO₂e as the social cost of carbon, ***the company was able to achieve a cumulative societal benefit of ~\$150,000*** during this period

Case Study: Preview of Value of Circular Business Models



- NYU Stern CSB is currently working with two apparel companies who have implemented circular business models:
 - One model is a resale program that offers gently used clothing made by the parent company
 - One model is a consumer incentive program that offers shopping credit if consumers donate products to a third-party consignment company

- Benefits that will be monetized between the two models are the following:
 - Profit from the resale program
 - Incremental profit to the parent company (as a result of customers gained from the resale program)
 - Profit from the consumer incentive program
 - Reduction in customer acquisition costs
 - Earned media

▪ ***For the value of the resale program benefits, the 2019 preliminary estimate is ~\$1.9 million***





NYU | STERN

Center for
Sustainable Business

Overview of Apparel Benefits by Strategy

Framework for Each Sustainability Strategy and Relevant Mediating Factors



In the following slides, we will walk through four of the sustainability strategies. Each slide presents the practices and sub-practices, and maps relevant benefits, mediating factors, and proposed monetization methods. Mediating factors and their definitions are highlighted below.

Relevant Mediating Factors

Customer Loyalty (CL)

Employee Relations (ER)

Innovation (IN)

Media Coverage (MC)

Operational Efficiency (OE)

Risk Management (RM)

Sales & Marketing (SM)

Supplier Relations (SR)

Stakeholder Engagement (SE)

Benefits that...

Attract an increasing number of conscious buyers & consumers, while reducing retention costs

Improve employee workplace culture and retain talent

Create new revenue streams using sustainable business models

Increase a company's media presence with the development of both traditional and social media content

Optimize corporate and supply chain efficiencies to lower cost and increase profits

Encourage risk mitigation and resilience within the value chain

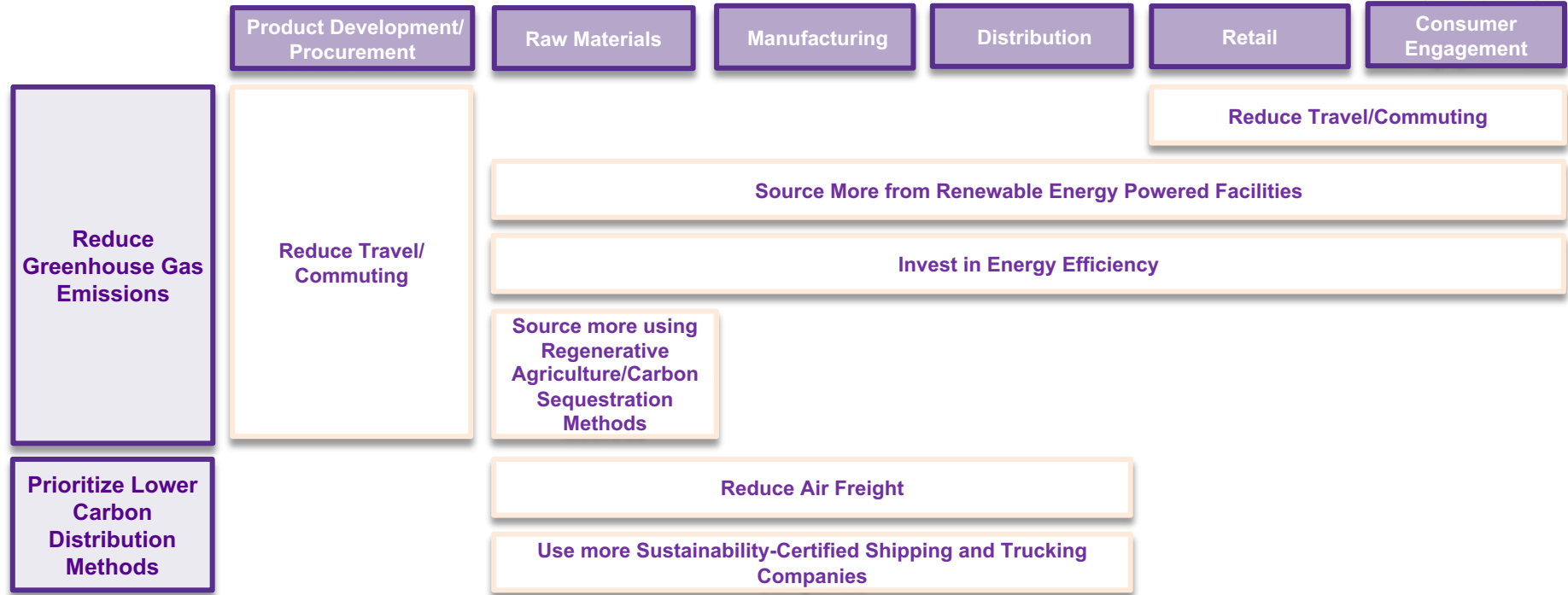
Increase volume of sales through brand and marketing policies

Improve upon the relationships between the company and its suppliers

Improve goodwill amongst the broader stakeholder community (i.e. NGOs)

Improving Energy Management

Improving Energy Management



Improving Energy Management

Overview of Sustainability Strategy and Relevant Mediating Factors



In the following slides, we will focus on the benefits realized from *Improving Energy Management*, which are categorized based on the relevant mediating categories highlighted below:

Sustainability Strategy Definition

Improving Energy Management

Company focuses on practices to decrease greenhouse gas emissions by focusing on improving energy efficiency, changing distributions modes, and increasing use of renewable energy

Relevant Mediating Factors

Benefits that...

Customer Loyalty (CL)

Attract an increasing number of conscious buyers & consumers, while reducing retention costs

Employee Relations (ER)

Improve employee workplace culture and retain talent

Operational Efficiency (OE)

Optimize corporate and supply chain efficiencies to lower cost and increase profits

Risk Management (RM)

Encourage risk mitigation and resilience within the value chain

Sales & Marketing (SM)

Increase volume of sales through brand and marketing policies

Supplier Relations (SR)

Improve upon the relationships between the company and its suppliers

Stakeholder Engagement (SE)

Improve goodwill amongst the broader stakeholder community (i.e. NGOs)

Improving Energy Management

Overview of Benefits and Monetization Methods (1/2) Cont.

| Practice | Sub-Practice | Proposed Benefits | Mediating Factors | Proposed Monetization Methods | Financial Impact Priority |
|---|---|---|-------------------|---|---------------------------|
| Prioritize Lower Carbon Distribution Methods | Reduce Air Freight | Reduced transportations costs (by shifting transport towards sea and trucking) | OE | Calculate cost differential of shipping costs before and after shift in transport mode (from air to sea and trucking) to achieve avoided cost savings | ✓ |
| | | Increased Societal Benefit through a reduction in GHG emissions | SE | Calculate savings in societal benefit using the reduction of GHG emissions (from shift in transport mode) by the social cost of carbon | |
| | | Reduced impact for future regulations on emissions | RM | Calculate differential of GHG emissions before and after shift in transport mode (from air to sea and trucking) and use NPV to determine future cost savings on estimated carbon and regulatory taxes | |
| | Use More Sustainable Certified Shipping and Trucking Companies Source | Reduced costs by utilizing shared services for full truckload (TL) (ex. flock freight – partner of US Environmental Protection Agency's SmartWay Transport Program) | OE | Calculate cost differential of shipping costs before and after transition to sustainable shipping to achieve avoided cost savings | ✓ |
| | | Increase customer loyalty from company participation in sustainable certified shipping and trucking | CL | Calculate incremental profit to the company from sales spurred by the existence of more sustainable-certified shipping and trucking companies minus associated costs | |
| Assuming DC to store transport <i>*For this sub-practice, we focused on trucking with air under the 'reduce air freight practice'. We can research sustainable certified sea shipping if needed.</i> | | | | | |

Improving Energy Management

Overview of Benefits and Monetization Methods (1/2) Cont.

| Practice | Sub-Practice | Proposed Benefits | Mediating Factors | Proposed Monetization Methods | Financial Impact Priority |
|--|--|---|-------------------|---|---------------------------|
| Prioritize Lower Carbon Distribution Methods | Use More Sustainable-Certified Shipping and Trucking Companies | Increased sales due to delivery of product by more efficient transport <i>*Increasing speed to market without air transport should increase customer loyalty and sales</i> | CL SM | Calculate incremental profit due to usage of more sustainable-certified shipping and trucking in on-time delivery of product based on optimized shipping routes and reduced timeframe for transport | |
| | | Increased Societal Benefit through a reduction in GHG emissions | SE | Calculate savings in societal benefit using the reduction of GHG emissions (from shift to sustainable-certified shipping and trucking) quantified by the social cost of carbon | |
| | | Reduce impact for transport disruptions by utilizing more efficient shared services | RM | Calculate estimated reduction in # of transport disruptions before and after implementation of more sustainable-certified shipping and trucking and multiplied by cost per disruption to achieve avoided cost savings | ✓ |
| | | Reduced impact for future regulations on emissions | RM | Calculate differential of GHG emissions before and after shift in transport (to more sustainable-certified shipping and trucking) and use NPV to determine future cost savings on estimated carbon and regulatory taxes | |

Improving Energy Management

Overview of Benefits and Monetization Methods (2/2)




| Practice | Sub-Practice | Proposed Benefits | Mediating Factors | | Proposed Monetization Methods | Financial Impact Priority |
|---------------------------------|---|--|-------------------|---|---|---------------------------|
| Reduce Greenhouse Gas Emissions | Source More from Renewable Energy-Powered Facilities | Reduce costs by sourcing more from supplier and manufacturing partners that use renewable power <i>*No upfront CapEx from company; sourcing and manufacturing method only</i> | OE | SR | Calculate cost differential of supplier and production costs before and after sourcing with manufacturing partners using renewable energy to power. Include incremental cost of sourcing from new facilities (on-boarding, development, testing, production-run process, etc.) <i>*Manufacturing partners to analyze per unit cost of renewable energy used compared to per unit cost of traditional energy and input into costs assigned per product produced</i> | |
| | Investing/co-investing with suppliers in onsite equipment for renewable power <i>*Shared or total CapEx from company for renewable energy usage at supplier facility</i> | OE | SR | Calculate upfront investment cost's impact on supplier production costs vs existing production costs using traditional/non-renewable energy sources <i>*Volume and cost of energy consumed for manufacturers per unit produced</i> <ul style="list-style-type: none"> <i>Company investment for renewable power sources and infrastructure – cost differential before and after installation with company obtaining total savings included in product cost</i> <i>Co-invest for renewable power sources and infrastructure – cost differential before and after installation with company obtaining <u>shared</u> savings in the product costs</i> | | |

Improving Energy Management

Overview of Benefits and Monetization Methods (2/2) Cont.



| Practice | Sub-Practice | Proposed Benefits | Mediating Factors | | Proposed Monetization Methods | Financial Impact Priority |
|---------------------------------|--|--|-------------------|----|---|---|
| | | | SR | SE | | |
| Reduce Greenhouse Gas Emissions | Source More from Renewable Energy-Powered Facilities | Increased societal benefit through a reduction in GHG Emissions based on energy (kWh) displacement | SR | SE | Calculate savings in societal benefit using the displacement/reduction of kWh (converted into GHG emissions) by the social cost of carbon | |
| | | Reduced supply chain disruption, given less supplier dependency on fossil fuels as energy sources | RM | | Calculate estimated reduction in # of supply chain disruptions before and after usage of renewable energy powered facilities multiplied by cost per disruption (or loss of sales per disruption) to achieve estimated cost savings <i>*Based on Forecast of traditional energy price volatility and expected renewable energy growth for a 3-5 year period</i> | |
| | | Reduced risk for future carbon regulations | RM | | Calculate cost differential of kWh usage and associated costs before and after sourcing more from renewable energy powered facilities and use NPV to determine future cost savings on increase REC costs |  |



= If implemented, this benefit can realize substantial financial impact


Improving Energy Management

Overview of Benefits and Monetization Methods (1/2)

| Practice | Sub-Practice | Proposed Benefits | Mediating Factors | Proposed Monetization Methods | Financial Impact Priority |
|------------------------------|---|--|-------------------|---|---------------------------|
| Reduced Greenhouse Emissions | Invest in Energy Efficiency source | Reduce costs for energy usage/consumption | OE | Calculate the cost differential between an upgrade to efficient energy usage (including investment costs of switching to energy efficient resources, total energy usage costs, efficiency investment costs (to program administrator)) and traditional energy usage | ✓ |
| | | Increased Societal Benefit through a reduction in GHG Emissions, based on energy (kWh) usage | SE | Calculate savings in societal benefit using the reduction of kWh (converted into GHG emissions) by the social cost of carbon | |
| | | Increased brand value from investing in energy efficiency | CL SM | Calculate incremental profit to the company from sales spurred by the existence of energy efficiency minus associated costs of utilizing efficient resources | |
| | Source More using Regenerative Agriculture/Carbon Sequestration Methods | Reduced material costs based on regenerative agriculture | OE | Calculate the cost differential between usage of raw materials cultivated by regenerative agriculture practices (including investment costs in infrastructure to sequester carbon from the atmosphere, tax incentives for usage of sequestered carbon and increased crop yield) and traditional agriculture practices (including costs for pesticides and crop yield) | ✓ |
| | | Increased brand value from investing in regenerative agriculture/carbon sequestration | CL SM | Calculate incremental profit to the company from sales spurred by the usage and marketing of materials generated from regenerative agriculture using carbon sequestration | |
| | | Reduced risk for future carbon regulations | RM | Calculate cost differential of before and after sourcing more from suppliers using regenerative agriculture methods and use NPV to determine future cost savings on increased material costs and taxation | |

Improving Energy Management

Overview of Benefits and Monetization Methods (2/2) Cont.

| Practice | Sub-Practice | Proposed Benefits | Mediating Factors | Proposed Monetization Methods | Financial Impact Priority |
|---------------------------------|---------------------------|--|-------------------|--|---|
| Reduce Greenhouse Gas Emissions | Reduce Travel / Commuting | Reduce costs from reduction in travel with reduction of use of private aircraft, transitioning to commercial flights or less carbon intensive methods of transport when feasible | OE | Calculate cost differential between company savings in reduction of travel (by use of private aircraft and/or research, development, and production trips) and quantified associated costs (potential product quality/ design concerns/delivery delays, potential lost productivity, additional capex expenditure for technology where feasible) |  |
| | | Increase productivity with less time on commuting/increase work from home <i>*This includes but not limited to offering flexible work from home policies, providing employee mass transit benefits, and transitioning to teleconference when feasible</i> | OE | Calculate cost differential between company productivity metrics before and after program implementation and compare against associated costs (employee mass transit benefits, CapEx for teleconference equipment/technology, laptops/phones) and saving (decrease in office overhead, such as office space and peripherals) | |
| | | Increase in employee productivity due to reduced work commute, i.e. increase remote work opportunities | ER | Calculate monetary increase by multiplying number of employees by average annual salary and then multiplying by industry standard productivity increase from investment in direct benefits | |
| | | Reduce impact for future disruptions through implementation of reduced travel/commuting programs, technology, infrastructure, operations, and other associated strategies | RM | Calculate estimated reduction in # of disruptions before and after implementation of reduction of travel and commuting multiplied by cost per disruption to achieve avoided cost savings | |

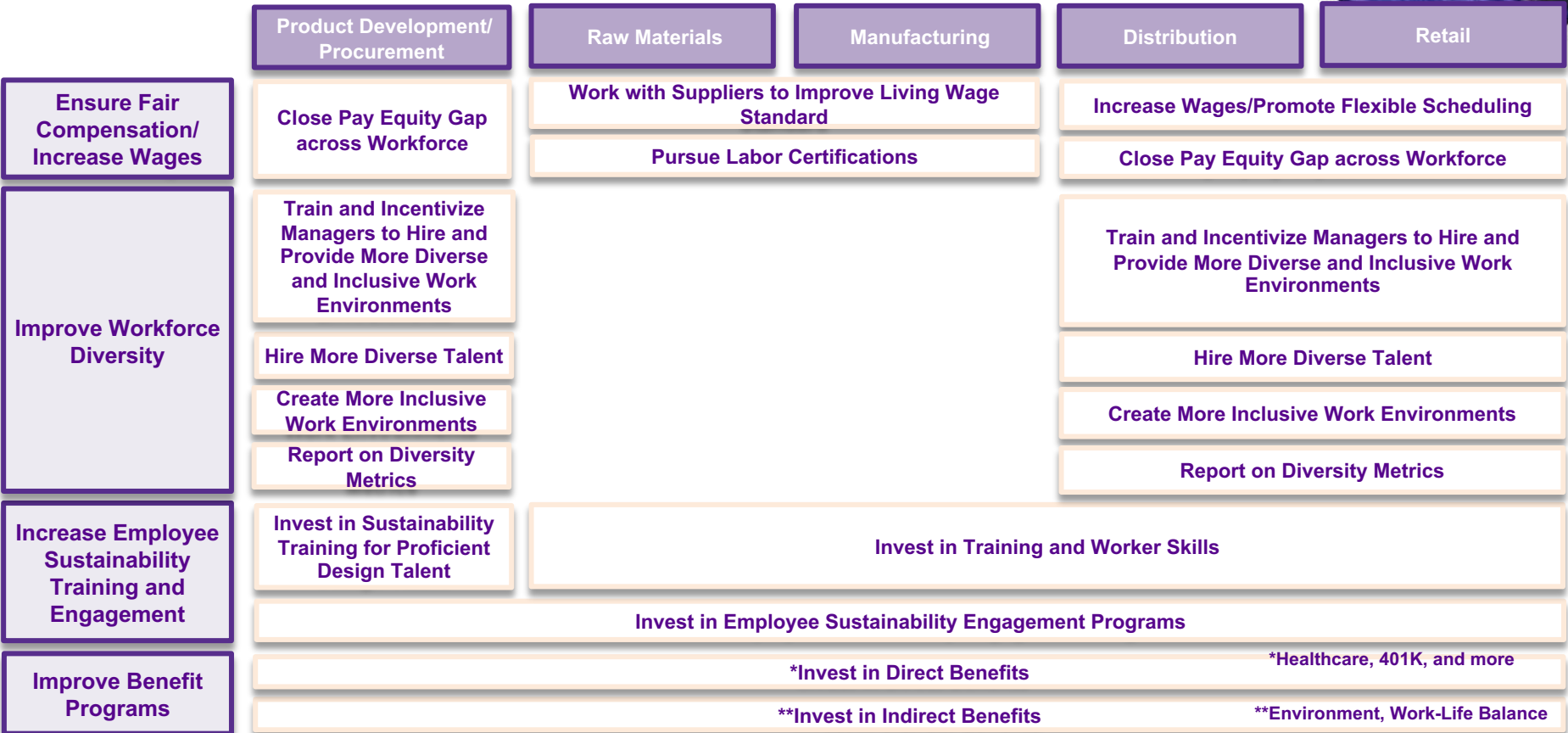


NYU | STERN

Center for
Sustainable Business

Investing in Employee and Supplier Well-Being

Investing in Employee & Supplier Well-Being



Investing in Employee and Supplier Well-Being

Overview of Sustainability Strategy and Relevant Mediating Factors



In the following slides, we will be focusing on benefits from *Investing in Employee and Supplier Well-Being*, which are categorized based on the relevant impact categories highlighted below:

Sustainability Strategy Definition

Investing in Employee and Supplier Well-Being

Company improves labor conditions in the supply chain and within the corporate workforce through practices that directly and indirectly benefit the health and safety of the workforce

Relevant Mediating Factors

Benefits that...

Employee Relations (ER)

Improve employee workplace culture and retain talent

Operational Efficiency (OE)

Optimize corporate and supply chain efficiencies to lower cost and increase profits

Risk Management (RM)

Encourage risk mitigation and resilience within the value chain

Supplier Relations (SR)

Improve upon the relationships between the company and its suppliers

Stakeholder Engagement (SE)

Improve goodwill amongst the broader stakeholder community (i.e. NGOs)

Investing in Employee & Supplier Well-Being

Overview of Benefits and Monetization Methods (1/4)



| Practice | Sub-Practice | Proposed Benefits | Mediating Factors | Proposed Monetization Methods | Financial Impact Priority |
|--|---|--|-------------------|--|---------------------------|
| Increase Employee Sustainability Training and Engagement | Invest in Employee Sustainability Engagement Programs | Increase in employee productivity due to engagement in company's sustainability programs | ER | Calculate monetary increase by multiplying number of employees by average annual salary and then multiplying by productivity increase from sustainability programs | |
| | | Reduce costs associated with turnover rates | ER | Calculate turnover rate differential before and after the company's implementation of the sustainability engagement programs, then multiply by number of employees, annual salary, and turnover cost as a percentage of salary | ✓ |
| | | Reduce costs associated with hiring | ER | Calculate turnover rate differential and multiply by the number of employees and the cost of hiring per employee | ✓ |



= If implemented, this benefit can realize substantial financial impact

Investing in Employee & Supplier Well-Being

Overview of Benefits and Monetization Methods (1/4) Cont.

| Practice | Sub-Practice | Proposed Benefits | Mediating Factors | Proposed Monetization Methods | Financial Impact Priority |
|--|---|---|-------------------|---|---------------------------|
| Increase Employee Sustainability Training and Engagement | Invest in Sustainability Training for Design Talent | Increase in productivity for design and product development employees as a result of sustainability training | ER | Calculate monetary increase by multiplying number of employees by average annual salary and then multiplying by industry standard productivity increase from skilled design and product development, more efficient through the design and development process with sustainability knowledge <i>*The concept includes that skilled design employees should be more efficient when producing apparel product, leading to greater productivity</i> | |
| | | Reduce costs associated with turnover rates | ER | Calculate turnover rate differential of the company before and after design talent investment in sustainability training, then multiply by number of employees, annual salary, and turnover cost as a percentage of salary | ✓ |
| | | Reduce costs associated with hiring | ER | Calculate turnover rate differential between company before and after design talent investment in sustainability training and multiply by number of employees and cost of hiring per employee | ✓ |
| | | Reduce costs associated with product development through focus on sustainability including technical workmanship and textile/fabric development | OE | Calculate cost differential of product development costs before and after design talent investment in sustainability training to achieve avoided cost savings | |

Investing in Employee & Supplier Well-Being

Overview of Benefits and Monetization Methods (1/4) Cont.

| Practice | Sub-Practice | Proposed Benefits | Mediating Factors | Proposed Monetization Methods | Financial Impact Priority |
|--|--|---|-------------------|---|---------------------------|
| Increase Employee Sustainability Training and Engagement | Invest in Training and Worker Skills <i>*This includes partnering with suppliers and manufacturers on worker training</i> | Increase in productivity due to investment in sustainability training, knowledge and worker skills | ER | Calculate monetary increase by multiplying number of employees by average annual salary and then multiplying by the productivity increase from trained and skilled workers <i>*The concept includes that properly trained workers should have less errors and therefore less wastage when producing apparel product, leading to greater productivity</i> | |
| | | Reduce costs associated with turnover rates | ER | Calculate turnover rate differential between company before and after design talent investment, then multiply by number of employees, annual salary, and turnover cost as a percentage of salary <i>*This is especially important in sustainable design as investment in training and workers skill can produce product of greater workmanship</i> | ✓ |
| | | Reduce costs associated with hiring | ER | Calculate turnover rate differential and multiply by the number of employees and the cost of hiring per employee | ✓ |
| | | Reduce costs associated with product development with focus on sustainability including technical workmanship | OE | Calculate cost differential of product development costs before and after investment in training and worker skills to achieve avoided cost savings <i>*This is especially important in sustainable design as investment in training and workers with required skillset will produce apparel that is better made</i> | |

Investing in Employee & Supplier Well-Being

Overview of Benefits and Monetization Methods (2/4)

| Practice | Sub-Practice | Proposed Benefits | Mediating Factors | Proposed Monetization Methods | Financial Impact Priority |
|--------------------------|--|---|-------------------|--|---------------------------|
| Improve Benefit Programs | Invest in Direct Benefits (Healthcare, 401K, and more) | Increase in employee productivity due to investment in direct benefits | ER | Calculate monetary increase by multiplying number of employees by average annual salary and then multiplying by industry standard productivity increase from investment in direct benefits | |
| | | Reduce costs associated with turnover rates | ER | Calculate turnover rate differential between company and industry standard turnover rates, then multiply by number of employees, annual salary, and turnover cost as a percentage of salary | ✓ |
| | | Reduce costs associated with hiring | ER | Calculate turnover rate differential and multiply by the number of employees and the cost of hiring per employee | ✓ |
| | Invest in Indirect Benefits (Environment, Work-Life Balance) | Increase in net benefits associated with programs such as employee well-being | ER | Calculate monetary benefit by assigning a value (such as # of days off) to a daily wage multiplier | |
| | | Increase in employee productivity due to investment in indirect benefits | ER | Calculate monetary increase by multiplying number of employees by average annual salary and then multiplying by industry standard productivity increase from investment in indirect benefits | |
| | | Reduce costs associated with turnover rates | ER | Calculate turnover rate differential between company and industry standard turnover rates, then multiply by number of employees, annual salary, and turnover cost as a percentage of salary | ✓ |
| | | Reduce costs associated with hiring | ER | Calculate turnover rate differential and multiply by the number of employees and the cost of hiring per employee | ✓ |

Investing in Employee & Supplier Well-Being

Overview of Benefits and Monetization Methods (3/4)



| Practice | Sub-Practice | Proposed Benefits | Mediating Factors | Proposed Monetization Methods | Financial Impact Priority |
|---|---|---|-------------------|---|---------------------------|
| Ensure Fair Compensation/ Increase Wages | Close Pay Equity Gap across Workforce <i>*Additional research required</i> | Increase in return on assets IMF source | SE | Compare company's ROA against associated increased pay across the workforce | |
| | | Increase in employee productivity due fair pay across workforce | ER | Calculate monetary increase by multiplying number of employees by average annual salary and then multiplying by industry standard productivity increase from reduction in pay gap | |
| | | Reduce costs associated with turnover rates | ER | Calculate turnover rate differential between company and industry standard turnover rates, then multiply by number of employees, annual salary, and turnover cost as a percentage of salary | ✓ |
| | | Reduce costs associated with hiring | ER | Calculate turnover rate differential and multiply by the number of employees and the cost of hiring per employee | ✓ |

Investing in Employee & Supplier Well-Being

Overview of Benefits and Monetization Methods (3/4) Cont.



| Practice | Sub-Practice | Proposed Benefits | Mediating Factors | | Proposed Monetization Methods | Financial Impact Priority |
|---|---|---|-------------------|----|--|---------------------------|
| Ensure Fair Compensation / Increase Wages | Work with suppliers to improve living wage standard | Increase in return on assets due to increase in labor being paid a minimum wage | SE | | Compare company's return on assets against associated increased labor costs | |
| | | Increase productivity and quality of work based on workers being able to have an affordable living wage | SR | | Calculate incremental profit by measurable output (less wastage and better workmanship) minus increase in freight on board (FOB) due to increase wages | |
| | | Reduce costs associated with turnover rates | SR | ER | Calculate cost differential of before and after turnover rates multiplied by number of suppliers, annual salary, and turnover cost as a percentage of salary and compare against decrease in FOB | ✓ |
| | | Reduce costs associated with hiring | SR | ER | Calculate cost differential of before and after turnover rates multiplied by the cost of hiring per employee and by number of employees and compare against decrease in FOB | ✓ |

Investing in Employee & Supplier Well-Being

Overview of Benefits and Monetization Methods (3/4) Cont.



| Practice | Sub-Practice | Proposed Benefits | Mediating Factors | Proposed Monetization Methods | Financial Impact Priority |
|---|--|--|-------------------|---|---------------------------|
| Ensure Fair Compensation/ Increase Wages | Increase Wages/Promote Flexible Scheduling | Increase in return on assets due to increase in wages | SE | Compare company's return on assets against associated increased labor costs | |
| | | Increase in employee productivity due fair pay across workforce | ER | Calculate monetary increase by multiplying number of employees by average annual salary and then multiplying by industry standard productivity increase | |
| | | Reduce costs associated with turnover rates | ER | Calculate turnover rate differential between company and industry standard turnover rates, then multiply by number of employees, annual salary, and turnover cost as a percentage of salary | ✓ |
| | | Reduce costs associated with hiring | ER | Calculate turnover rate differential and multiply by the number of employees and the cost of hiring per employee | ✓ |
| | Pursue Labor Certifications | Reduce likelihood of future regulatory issues regarding labor certification requirements | RM | Calculate estimated reduction in # of potential regulatory issues before and after implementation of labor certifications multiplied by cost per regulatory issue to achieve avoided cost savings | ✓ |

Investing in Employee & Supplier Well-Being

Overview of Benefits and Monetization Methods (4/4)

| Practice | Sub-Practice | Proposed Benefits | Mediating Factors | Proposed Monetization Methods | Financial Impact Priority |
|-----------------------------|---|--|-------------------|---|---------------------------|
| Improve Workforce Diversity | Train and Incentivize Managers to Hire and Provide More Diverse and Inclusive Work Environments | [Benefits highlighted in the next two rows below] | ER | [Proposed monetization methods highlighted in the next two rows below] | ✓ |
| | Hire More Diverse Talent | Increase in productivity due to hiring of diverse talent | ER | Calculate monetary increase by multiplying number of employees by average annual salary and then multiplying by productivity increase from hiring more diverse talent | ✓ |
| | Create More Inclusive Work Environments | Reduce costs associated with turnover rates | ER | Calculate turnover rate differential between company and industry standard turnover rates, then multiply by number of employees, annual salary, and turnover cost as a percentage of salary | ✓ |
| | | Reduce costs associated with hiring | ER | Calculate turnover rate differential and multiply by the number of employees and the cost of hiring per employee | ✓ |
| | Report on Diversity Metrics | Increase likelihood of business opportunities / partnerships with stakeholders (i.e. NGOs) | SE | Calculate annual monetary / intangible value from business opportunities associated with reporting diversity metrics minus associated costs | ✓ |



NYU | STERN

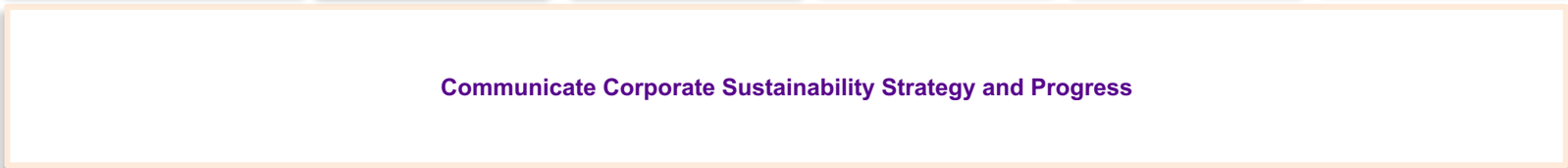
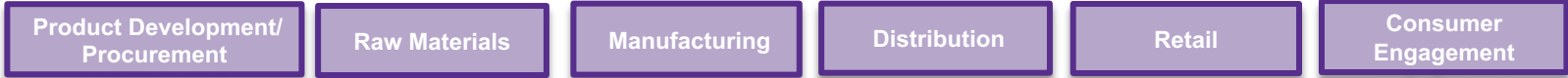
Center for
Sustainable Business

Investing in Sustainable Brand Marketing and Communications

Investing in Sustainable Brand Marketing and Communications*



*Includes Employees, Customers, and Other Stakeholders



Investing in Sustainable Brand Marketing and Communications

Overview of Sustainability Strategy and Relevant Mediating Factors



In the following slides, we will be focusing on benefits from *Investing in Sustainable Brand Marketing and Communications*, which are categorized based on the relevant mediating factors highlighted below:

Sustainability Strategy Definition

Investing in Sustainable Brand Marketing and Communications

Company invests in marketing and education around sustainability through engagement campaigns and branding

Relevant Mediating Factors

Benefits that...

Customer Loyalty (CL)

Attract an increasing number of conscious buyers & consumers, while reducing retention costs

Employee Relations (ER)

Improve employee workplace culture and retain talent

Media Coverage (MC)

Increase a company's media presence with the development of both traditional and social media content

Sales & Marketing (SM)

Increase volume of sales through brand and marketing policies

Supplier Relations (SR)

Improve upon the relationships between the company and its suppliers

Stakeholder Engagement (SE)

Improve goodwill amongst the broader stakeholder community (i.e. NGOs)

Risk Management (RM)

Encourage risk mitigation and resilience within the value chain

Investing in Sustainable Brand Marketing and Communications

Overview of Benefits and Monetization Methods (1/1)

| Practice | Sub-Practice | Proposed Benefits | Mediating Factors | Proposed Monetization Methods | Financial Impact Priority |
|-------------------------------------|--|--|-------------------|--|---------------------------|
| Promote Brand Sustainability | Communicate Corporate Sustainability Strategy and Progress | Attract and retain top tier talent in sustainability through communications on sustainability strategy | ER | Calculate annual investment in top talent compared to previously invested talent for recruiting % | ✓ |
| | | Increase attractiveness to suppliers and manufacturers with sustainability focus within the value chain | SR | Calculate annual profit from partnering with sustainability focused suppliers and manufacturers compared to previous supplier/manufacturers relationships to determine sustainability progress % | |
| | | Increase business opportunities by investing in stakeholder relationships through communications on sustainability strategy communications | SE | Calculate annual profit from business opportunities associated with sustainability minus costs associated with sustainability communications | |
| | | Decrease costs associated with reputational damage for not engaging in sustainability strategies | RM | Calculate estimated reduction in # of potential reputational issues before and after implementation of sustainability strategies multiplied by cost per reputational issue | ✓ |
| | | Increase unpaid earned media | MC | Calculate cost per media exposure multiplied by # of unpaid media exposures (given program visibility) to achieve avoided cost savings | |



= If implemented, this benefit can realize substantial financial impact

Investing in Sustainable Brand Marketing and Communications

Overview of Benefits and Monetization Methods (1/1) Cont.



| Practice | Sub-Practice | Proposed Benefits | Mediating Factors | Proposed Monetization Methods | Financial Impact Priority |
|------------------------------|---|---|-------------------|---|---------------------------|
| Promote Brand Sustainability | Promote Sustainability Practices & Certifications through Branding / Labeling Ex. BCI Cotton Ozone, waterless washing Tencel, sustainable fiber | Increase sales by converting customers to purchase through explicit labeling and branding on products | CL SM | Calculate incremental profit to the company from sales spurred by the existence of sustainability labels/branding minus associated costs (labels, branding, certifications and sustainable manufacturing) and estimated increase in customer lifetime value | ✓ |
| | | Lower customer acquisition costs | CL SM | Calculate cost differential between customer acquisition costs before and after the implementation of sustainable branding/labeling OR calculate estimated # of customers who purchase parent company products for the first time (via the specialized product) multiplied by customer acquisition costs per customer to achieve avoided cost savings | |
| | | Increase unpaid earned media | MC | Calculate cost per media exposure multiplied by # of unpaid media exposures (given specialized product visibility) to achieve avoided cost savings | |

Investing in Sustainable Brand Marketing and Communications

Overview of Benefits and Monetization Methods (1/1) Cont.



| Practice | Sub-Practice | Proposed Benefits | Mediating Factors | Proposed Monetization Methods | Financial Impact Priority |
|------------------------------|--|--|-------------------|---|---------------------------|
| Promote Brand Sustainability | Inspire Sustainable Actions through Consumer Engagement Campaigns | Increase sales from sustainability-focused consumer engagement marketing campaigns | CL SM | Calculate incremental profit to the company from sales spurred by consumer engagement marketing campaigns minus associated marketing costs | ✓ |
| | <i>Examples: Wash jeans less, Buy artisanal products, Reduce carbon footprint- (based on product return methods)</i> | Lower customer acquisition costs | CL SM | Calculate cost differential between customer acquisition costs before and after the implementation of consumer engagement marketing campaigns OR calculate estimated # of customers who purchase parent company products for the first time (via the consumer engagement campaigns) multiplied by customer acquisition costs per customer to achieve avoided cost savings | |
| | | Increase sales from conversion based on consumer engagement marketing campaigns | SM | Calculate incremental profit attributed to sustainability consumer engagement campaigns (profit differential before and after) and estimated increase in customer lifetime value | |
| | | Increase unpaid earned media | MC | Calculate cost per media exposure multiplied by # of unpaid media exposures (given sustainability consumer engagement campaigns) to achieve avoided cost savings | |

Investing in Sustainable Brand Marketing and Communications

Overview of Benefits and Monetization Methods (1/1) Cont.

| Practice | Sub-Practice | Proposed Benefits | Mediating Factors | | Proposed Monetization Methods | Financial Impact Priority |
|------------------------------|---|---|-------------------|----|---|---------------------------|
| | | | CL | SM | | |
| Promote Brand Sustainability | Promote Inclusivity through Product, Campaigns, and Customer Experience | Increase purchase sales from promotion of inclusivity <i>*This includes but not limited to employee training, more inclusive and expansive product offerings, and broader more inclusive marketing campaigns</i> | CL | SM | Calculate incremental profit to the company from sales spurred by inclusive promotion (product, marketing, and experience) minus associated costs to create inclusive product, marketing, and experience | ✓ |
| | | Lower customer acquisition costs | CL | SM | Calculate cost differential between customer acquisition costs before and after the implementation of inclusive promotion OR calculate estimated # of customers who purchase parent company products for the first time (via the consumer engagement campaigns) multiplied by customer acquisition costs per customer to achieve avoided cost savings | |
| | | Increase unpaid earned media | MC | | Calculate cost per media exposure multiplied by # of unpaid media exposures (given promotion of inclusivity through product, campaigns, and customer experience) to achieve avoided cost savings | |
| | | Increase sales from conversion based on consumer engagement marketing campaigns | SM | | Calculate incremental profit attributed to promote inclusivity through product, campaigns, and customer experience (profit differential before and after) and estimated increase in customer lifetime value | |

Investing in Sustainable Brand Marketing and Communications

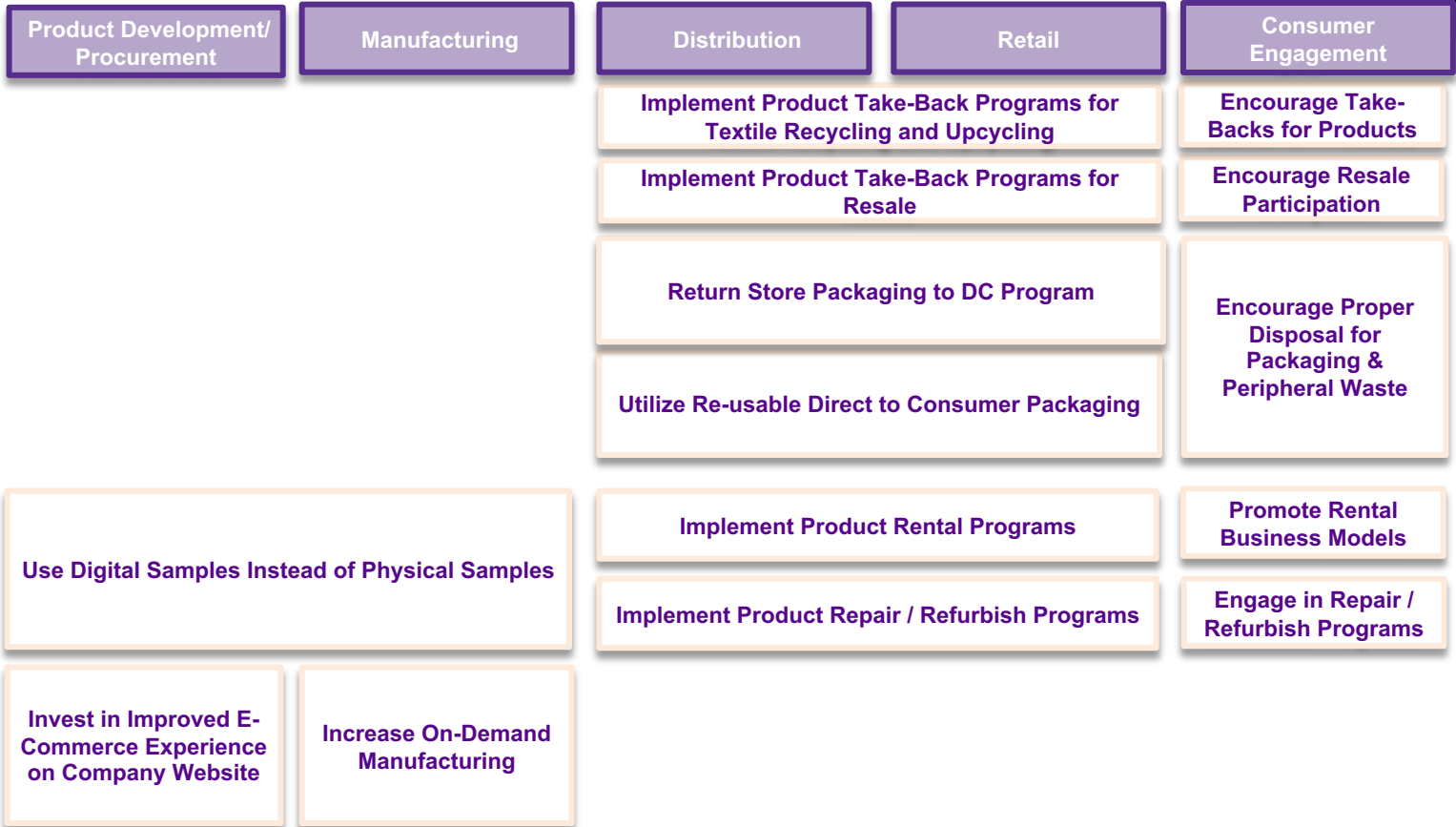
Overview of Benefits and Monetization Methods (1/1) Cont.



| Practice | Sub-Practice | Proposed Benefits | Mediating Factors | Proposed Monetization Methods | Financial Impact Priority |
|------------------------------|---|--|-------------------|--|---------------------------|
| Promote Brand Sustainability | Promote Inclusivity through Product, Campaigns, and Customer Experience | Increase opportunities and potential partnerships by promoting inclusivity with the ability to diversify more broadly around issues, such as with NGOs | SE | Calculate annual profit from business opportunities associated with inclusivity minus costs associated with communications | |
| | | Reduced brand reputational risk by fostering inclusivity | RM | Calculate estimated reduction in # of lost sales and opportunities before and after implementation of the promotion of inclusivity multiplied by cost per loss (or loss of sales per opportunity) to achieve avoided cost savings Ex. Reduction in boycotts | |

Investing in Circularity and Innovation

Investing in Circularity and Innovation Framework Layout



Investing in Circularity and Innovation

Overview of Sustainability Strategy and Relevant Mediating Factors



In the following slides, we will be focusing on benefits from *Investing in Circularity and Innovation*, which are categorized based on the relevant mediating factors highlighted below:

Sustainability Strategy Definition

Investing in Circularity and Innovation

Company invests in innovation to achieve new circular business models that focus on product take-back and innovative design methods

Relevant Mediating Factors

Operational Efficiency (OE)

Benefits that... Optimize corporate and supply chain efficiencies to lower cost and increase profits

Innovation (INN)

Benefits that... Create new revenue streams using sustainable business models

Customer Loyalty (CL)

Benefits that... Attract an increasing number of conscious buyers & consumers, while reducing retention costs

Risk Management (RM)

Benefits that... Encourage risk mitigation and resilience within the value chain

Sales & Marketing (SM)

Benefits that... Increase volume of sales through brand and marketing policies

Media Coverage (MC)

Benefits that... Increase a company's media presence with the development of both traditional and social media content

Investing in Circularity and Innovation

Overview of Benefits and Monetization Methods (1/4)

| Practice | Sub-Practice | Proposed Benefits | Mediating Factors | Proposed Monetization Methods | Financial Impact Priority |
|---|--|---|-------------------|---|---------------------------|
| Invest in Circular Product Take-Back Programs | Implement Product Take-Back Programs for Resale | Sales from reused items within resale programs <i>*For strategic recommendations, working with third-parties is beneficial but there is upside to developing these capabilities in-house (incremental parent company profit, etc.)</i> | INN | Calculate annual profit from resale program: annual revenue from resale program sales minus costs associated with selling reused items (i.e. sorting and cleaning costs) | ✓ |
| | Implement Product Take-Back Programs for Textile Recycling and Upcycling | Reduced material costs from recycled fabrics | OE | Calculate the cost differential between virgin material costs and recycled material costs for the same quantity of products to achieve avoided cost savings; when looking at a scenario with recycled costs, it needs to incorporate % used for virgin and recycled materials | ✓ |
| | | Reduced supply chain disruption, given decreased supplier dependency | RM | Calculate estimated reduction in # of supply chain disruptions before and after implementation of the product take-back program multiplied by cost per disruption (or loss of sales per disruption) to achieve avoided cost savings | ✓ |
| | | Revenue from selling materials for textile recycling | INN | Calculate annual profit from take-back program: annual revenue from program minus costs associated with textile recycling and upcycling (i.e. collecting, sorting, processing, product development costs) | |
| | | Revenue from selling upcycled products | INN | | |



= If implemented, this benefit can realize substantial financial impact

Investing in Circularity and Innovation

Overview of Benefits and Monetization Methods (1/4) Cont.

| Practice | Sub-Practice | Proposed Benefits | Mediating Factors | | Proposed Monetization Methods | Financial Impact Priority |
|---|-----------------------------------|---|-------------------|----|--|---------------------------|
| Invest in Circular Product Take-Back Programs | Encourage Resale Participation | New purchase sales from participation in resale programs | CL | SM | Calculate incremental profit to the company from sales spurred by the existence of resale programs (i.e. shopping credit to purchase products) minus associated costs (i.e. shopping credit costs) | ✓ |
| | | Lower customer acquisition costs | CL | SM | Calculate cost differential between total customer acquisition costs before and after resale program implementation OR calculate estimated # of customers who purchase parent company products for the first time (via the resale program) multiplied by customer acquisition costs per customer to achieve avoided cost savings | |
| | | Unpaid earned media | MC | | Calculate cost per media exposure multiplied by # of unpaid media exposures (given program visibility) to achieve avoided cost savings | |
| | Encourage Take-Backs for Products | New purchase sales from participation in take-back programs | CL | SM | Calculate incremental profit to the company from sales spurred by the existence of take-back programs (i.e. using a gift card to purchase products) minus associated costs (i.e. gift card costs) | ✓ |
| | | Lower customer acquisition costs | CL | SM | Calculate cost differential between total customer acquisition costs before and after take-back program implementation OR calculate estimated # of customers who purchase parent company products for the first time (via the take-back program) multiplied by customer acquisition costs per customer to achieve avoided cost savings | |
| | | Unpaid earned media | MC | | Calculate cost per media exposure multiplied by # of unpaid media exposures (given program visibility) to achieve more efficient media spend | |
| | | | | | | |

Investing in Circularity and Innovation

Overview of Benefits and Monetization Methods (2/4)

| Practice | Sub-Practice | Proposed Benefits | Mediating Factors | Proposed Monetization Methods | Financial Impact Priority |
|--|---|---|-------------------|---|---------------------------|
| Invest in Circular Packaging Solutions | <p>*Return Store Packaging to DC Program (Includes used-store packaging and peripherals as well as re-shippable containers from DC to stores) <i>**For reuse and/or proper waste disposal</i> <i>This sub-practice can be applicable for one company and its DC / retail stores and / or one company's DC and another company's retail stores; therefore, when applying this sub-practice, the supply chain structure, key players, and respective benefits need to be determined</i></p> | Reduction in waste hauling and tipping fees, given streamlined waste disposal process (i.e. aggregate waste disposal pick-up at DC as opposed to at individual retail stores) | OE | Calculate cost differential between waste disposal & associated fees if managed at the DC level and waste disposal & associated fees if managed at the retail store-level to achieve avoided cost savings | ✓ |
| | | Reduced costs associated with reuse of peripheral & packaging materials and shipping containers | OE | Calculate the cost differential between discarded packaging and peripheral costs and reusable packaging & peripheral and re-shippable container costs for the same quantity of products to achieve avoided cost savings | |
| | | Reduced supply chain disruption, given less supplier dependency (i.e. transportation of materials, etc.) | RM | Calculate estimated reduction in # of supply chain disruptions before and after implementation of the program multiplied by cost per disruption (or loss of sales per disruption) to achieve avoided cost savings | |

*Develop capabilities in-house or through a partnership

Investing in Circularity and Innovation

Overview of Benefits and Monetization Methods (2/4) Cont.

| Practice | Sub-Practice | Proposed Benefits | Mediating Factors | Proposed Monetization Methods | Financial Impact Priority |
|--|--|---|-------------------|--|---------------------------|
| Invest in Circular Packaging Solutions | *Utilize Re-usable Direct to Consumer Packaging | Reduced costs associated with reuse of periphery and packaging materials (i.e. reuse of polybags) | OE | Calculate the cost differential between discarded packaging & peripheral material costs and reusable packaging & peripheral costs for the same quantity of products to achieve cost savings | ✓ |
| | | Increased customer loyalty from offering packaging take-back program | CL SM | Calculate increase in Customer Lifetime Value (CLV) due to the increase in customer frequency and customer retention; additionally, calculate the incremental profit as a result of the increase in CLV | |
| | | Reduced supply chain disruption, given less supplier dependency | RM | Calculate estimated reduction in # of supply chain disruptions before and after implementation of the program multiplied by cost per disruption (or loss of sales per disruption) to achieve avoided cost savings | |
| | Encourage Proper Disposal for Packaging & Peripheral Waste (In-person and DTC) | Increased customer loyalty from offering proper waste disposal | CL SM | Calculate increase in customer lifetime value (CLV) due to the increase in customer frequency and customer retention; additionally, calculate the incremental profit as a result of the increase in CLV | ✓ |
| | | New purchase sales from participation in proper disposal for packaging & peripheral waste | CL SM | Calculate incremental profit to the company from sales spurred by the existence of proper waste disposal treatment (i.e. using a gift card to purchase products) minus associated costs (i.e. gift card costs) | |
| | | Lower customer acquisition costs | CL SM | Calculate cost differential between customer acquisition costs before and after the proper waste disposal implementation OR calculate estimated # of customers who purchase company products for the first time (via the waste disposal treatment) multiplied by customer acquisition costs per customer to achieve avoided cost savings | |
| | | Unpaid earned media | MC | Calculate cost per media exposure multiplied by # of unpaid media exposures (given program visibility) to achieve avoided cost savings | |

*Develop capabilities in-house or through a partnership, such as with LimeLoop

Investing in Circularity and Innovation

Overview of Benefits and Monetization Methods (3/4)

| Practice | Sub-Practice | Proposed Benefits | Mediating Factors | Proposed Monetization Methods | Financial Impact Priority |
|---|---|--|-------------------|--|---------------------------|
| Minimize Production Waste & Increase Product Longevity | Use Digital Samples Instead of Physical Samples | Reduced product development costs (i.e. less materials given reduction and eventual elimination of physical samples) | OE | Calculate cost differential of product development costs before and after digital sample implementation to achieve cost savings <i>*May need to account for upfront technology investment</i> | ✓ |
| | | <ul style="list-style-type: none"> Reduced transaction costs (i.e. fewer personnel to manage the physical sample process) & other miscellaneous costs associated with physical samples Reduced transportation & associated costs (i.e. packaging of physical samples) Reduced disposable waste-associated costs | OE | Calculate cost differential between transaction, transportation, and waste disposal costs before and after digital sample implementation to achieve cost savings | ✓ |
| | | Increased productivity, given quicker turnaround time during the sample process | OE | Calculate productivity level based on measurable output, such as speed-to-market and labor utilization | |
| | | Reduced supply chain disruption, given less supplier dependency (i.e. transportation of physical samples, etc.) | RM | Calculate estimated reduction in # of supply chain disruptions before and after implementation of the digital technology multiplied by cost per disruption (or loss of sales per disruption) to achieve avoided cost savings | |

Investing in Circularity and Innovation

Overview of Benefits and Monetization Methods (3/4) Cont.



| Practice | Sub-Practice | Proposed Benefits | Mediating Factors | Proposed Monetization Methods | Financial Impact Priority |
|---|---|--|-------------------|--|---------------------------|
| Minimize Production Waste & Increase Product Longevity | Implement Product Rental Programs | Sales from rental programs | INN | Calculate annual profit from rental programs: annual revenue minus costs associated with the programs (i.e. maintenance costs such as dry-cleaning, transportation, etc.) <i>*If the rental service is not in-house and through a third party (i.e. Rent the Runway), then the company will have to pay a fee to the third party, who will also shoulder some of the operating costs (i.e. dry-cleaning, mailing)</i> | ✓ |
| | | Reduced product development costs, given reduced number of products (due to product longevity) | OE | Calculate cost differential between product development costs before and after rental program implementation to achieve cost savings | |
| | Implement Product Repair / Refurbish Programs | Sales from repair / refurbish programs | INN | Calculate annual profit from repair / refurbish programs: annual revenue minus costs associated with the programs (i.e. potential incentives, etc.) | ✓ |
| | | Reduced product development costs, given reduced number of products (due to product longevity) | OE | Calculate cost differential between product development costs before and after repair / refurbish program implementation to achieve cost savings | |

Investing in Circularity and Innovation

Overview of Benefits and Monetization Methods (3/4) Cont.



| Practice | Sub-Practice | Proposed Benefits | Mediating Factors | | Proposed Monetization Methods | Financial Impact Priority |
|---|---------------------------------------|--|-------------------|----|--|---------------------------|
| Minimize Production Waste & Increase Product Longevity | Promote Rental Business Models | New purchase sales from participation in rental programs | CL | SM | Calculate incremental profit to the company from sales spurred by the existence of the rental program minus costs associated with the program (i.e. incentives, etc.) <i>*This can be applied to both in-house and third-party rental programs</i> | ✓ |
| | | Lower customer acquisition costs | CL | SM | Calculate cost differential between customer acquisition costs before and after the rental program implementation OR calculate estimated # of customers who purchase parent company products for the first time (via the rental program) multiplied by customer acquisition costs per customer to achieve cost savings | |
| | | Unpaid earned media | MC | | Calculate cost per media exposure multiplied by # of unpaid media exposures (given program visibility) to achieve avoided cost savings | |
| | Engage in Repair / Refurbish Programs | New purchase sales from participation in repair / refurbish programs | CL | SM | Calculate incremental profit to the company from sales spurred by the existence of the repair / refurbish program (i.e. shopping credit to purchase products) minus associated costs (i.e. shopping credit costs) | ✓ |
| | | Lower customer acquisition costs | CL | SM | Calculate cost differential between customer acquisition costs before and after the repair program implementation OR calculate estimated # of customers who purchase parent company products for the first time (via the repair program) multiplied by customer acquisition costs per customer to achieve cost savings | |
| | | Unpaid earned media | MC | | Calculate cost per media exposure multiplied by # of unpaid media exposures (given program visibility) to achieve avoided cost savings | |
| | | | | | | |

Investing in Circularity and Innovation

Overview of Benefits and Monetization Methods (4/4)



| Practice | Sub-Practice | Proposed Benefits | Mediating Factors | Proposed Monetization Methods | Financial Impact Priority |
|------------------------|---|--|-------------------|---|---------------------------|
| Reduce Product Returns | Invest in Improved E-commerce Experience on Company Website | Decrease in product returns & associated costs (i.e. packaging & transportation) | OE | Calculate the reduction in product returns multiplied by the average return cost per product to achieve avoided cost savings; savings should include associated costs that are also reduced such as packaging & transportation costs | ✓ |
| | | Increase in sales, given higher customer satisfaction and loyalty | CL SM | Calculate incremental profit attributed to the improved e-commerce experience (profit differential before and after) and estimated increase in customer lifetime value | |
| | Increase On-Demand Manufacturing | Reduction in excess inventory | OE | Calculate differential between costs of excess inventory before and after the increase in on-demand manufacturing to achieve avoided cost savings <i>*Less upfront investment in products, but dependent on supplier technology capability or investment</i> | ✓ |

Circularity Monetization Example & Tools

Example 1: New Purchase Sales Template Monetization Model



Benefit: New purchase sales for the parent company from participation in resale programs

Sustainable Apparel ROSI Monetization

Invest in Circular Product Take-Back Programs

*Assuming in-house resale programs

**All figures are illustrative

Sub-practice: Encourage Resale Participation

Benefit: New purchase sales from participation in resale programs

| DATA INPUTS: Company Data & Assumptions | Year 0 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---|--------|--------|--------|--------|--------|--------|
| Customer Behavior Data | | | | | | |
| Number of Resale Program Customers who Purchase Company Products | - | 600 | 650 | 670 | 690 | 710 |
| Average Spending per Customer | \$ - | \$ 110 | \$ 120 | \$ 124 | \$ 127 | \$ 131 |
| Number of Transactions | - | 600 | 650 | 670 | 690 | 710 |
| IF APPLICABLE: Average Shopping Credit (or Other Incentive) per Transaction | \$ - | \$ 72 | \$ 75 | \$ 77 | \$ 80 | \$ 82 |
| Additional Costs to Consider | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Rate Assumptions | | | | | | |
| Growth Rate | | 3% | 3% | 3% | 3% | 3% |
| Discount Rate | | | | | | 8% |

| CALCULATED: Incremental Profit from Sales Spurred by the Existence of Resale Programs | Year 0 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---|--------|-----------|-----------|-----------|-----------|-----------|
| Revenue Components | | | | | | |
| Number of Resale Program Customers who Purchase Company Products | - | 600 | 650 | 670 | 690 | 710 |
| Average Spending per Customer | \$ - | \$ 110 | \$ 120 | \$ 124 | \$ 127 | \$ 131 |
| Revenue from Purchasing Company Products | \$ - | \$ 66,000 | \$ 78,000 | \$ 82,750 | \$ 87,790 | \$ 93,136 |
| Total Revenue | \$ - | \$ 66,000 | \$ 78,000 | \$ 82,750 | \$ 87,790 | \$ 93,136 |
| Cost Components | | | | | | |
| Number of Transactions | - | 600 | 650 | 670 | 690 | 710 |
| IF APPLICABLE: Average Shopping Credit (or Other Incentive) per Transaction | \$ - | \$ 72 | \$ 75 | \$ 77 | \$ 80 | \$ 82 |
| IF APPLICABLE: Cost of Shopping Credit (or Other Incentive) Given to | \$ - | \$ 43,200 | \$ 48,750 | \$ 51,719 | \$ 54,869 | \$ 58,210 |
| Additional Costs to Consider | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Cost | \$ - | \$ 43,200 | \$ 48,750 | \$ 51,719 | \$ 54,869 | \$ 58,210 |
| Incremental Profit | \$ - | \$ 22,800 | \$ 29,250 | \$ 31,031 | \$ 32,921 | \$ 34,926 |

*Assumes one unique customer per transaction and assumes, if applicable, shopping credit as the incentive

| FINAL RESULTS | Year 0 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---------------------------|------------|-----------|-----------|-----------|-----------|-----------|
| Total Net Benefits | \$ - | \$ 22,800 | \$ 29,250 | \$ 31,031 | \$ 32,921 | \$ 34,926 |
| NPV | \$ 118,790 | | | | | |

*Figures are illustrative

Example 2: Lower Customer Acquisition Costs Template Monetization Model



Benefit: Lower customer acquisition costs, given attraction of resale customers to parent company products

Sustainable Apparel ROSI Monetization

Invest in Circular Product Take-Back Programs

*Assuming in-house resale program

**All figures are illustrative

Sub-practice: Encourage Resale Participation

Benefit: Lower customer acquisition costs

| DATA INPUTS: Company Data & Assumptions | Year 0 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|--|--------|------------|------------|------------|------------|---------|
| Marketing Costs | | | | | | |
| Total Company Sales & Marketing Expense | - \$ | 168,000 \$ | 170,000 \$ | 175,100 \$ | 180,353 \$ | 185,764 |
| Number of Customer Acquisitions | - | 95 | 100 | 103 | 106 | 109 |
| Customer Behavior Data | | | | | | |
| Number of Resale Customers Who Purchase Any Parent Company Item for the First Time | - | 110 | 130 | 134 | 138 | 142 |
| Rate Assumptions | | | | | | |
| Growth Rate | | 3% | 3% | 3% | 3% | 3% |
| Discount Rate | | | | | | 8% |

| CALCULATED: Reduction in Customer Acquisition Costs for Parent Company Given Attraction to Resale Program | Year 0 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---|--------|------------|------------|------------|------------|------------|
| Acquisition Cost Per Customer | \$ - | \$ 1,768 | \$ 1,700 | \$ 1,700 | \$ 1,700 | \$ 1,700 |
| Number of Resale Program Customers Who Purchase Any Parent Company Item for the First Time | - | 110 | 130 | 134 | 138 | 142 |
| Avoided Cost for Customer Acquisitions | \$ - | \$ 194,526 | \$ 221,000 | \$ 227,630 | \$ 234,459 | \$ 241,493 |
| Total Avoided Cost for Customer Acquisitions | \$ - | \$ 194,526 | \$ 221,000 | \$ 227,630 | \$ 234,459 | \$ 241,493 |

| FINAL RESULTS | Year 0 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|-----------------------|--------|------------|------------|------------|------------|------------|
| Total Benefits | \$ - | \$ 194,526 | \$ 221,000 | \$ 227,630 | \$ 234,459 | \$ 241,493 |
| NPV | \$ | 886,979 | | | | |

*Figures are illustrative

Example 3: Unpaid Earned Media Template Monetization Model



Benefit: Unpaid earned media for the parent company due to resale program visibility

Sustainable Apparel ROSI Monetization

Invest in Circular Product Take-Back Programs

*Assuming in-house resale program

**All figures are illustrative

Sub-practice: Encourage Resale Participation

Benefit: Unpaid earned media

| DATA INPUTS: Company Data & Assumptions | Year 0 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---|------------|--------------|--------------|--------------|--------------|--------------|
| Media Components | | | | | | |
| Average Annual Paid Media Cost | \$ - | \$ 1,150,000 | \$ 1,200,000 | \$ 1,236,000 | \$ 1,273,080 | \$ 1,311,272 |
| Number of Media Placements | 0 | 75 | 77 | 79 | 82 | 84 |
| Number of Unpaid Earned Media Placements (Due to Resale Program Visibility) | 0 | 5 | 7 | 7 | 7 | 8 |
| Rate Assumptions | | | | | | |
| Growth Rate | | 3% | 3% | 3% | 3% | 3% |
| Discount Rate | | | | | | 8% |
| CALCULATED: Unpaid Earned Media | | | | | | |
| Average Cost of Media Placement | \$ - | \$ 15,333 | \$ 15,584 | \$ 15,584 | \$ 15,584 | \$ 15,584 |
| Number of Unpaid Earned Media Placements (Due to Resale Program Visibility) | 0 | 5 | 7 | 7 | 7 | 8 |
| Avoided Cost for Earned Media | \$ - | \$ 76,667 | \$ 109,091 | \$ 112,364 | \$ 115,735 | \$ 119,207 |
| Total Avoided Cost for Earned Media | \$ - | \$ 76,667 | \$ 109,091 | \$ 112,364 | \$ 115,735 | \$ 119,207 |
| FINAL RESULTS | | | | | | |
| Total Benefits | \$ - | \$ 76,667 | \$ 109,091 | \$ 112,364 | \$ 115,735 | \$ 119,207 |
| NPV | \$ 419,912 | | | | | |

*Figures are illustrative

Acknowledgements

CSB contributors to the project include **Tensie Whelan, Sophie Rifkin, Rithu Raman, Kevin Eckerle, Elyse Douglas, and Randi Kronthal-Sacco.**

We would like to thank our funder, **HSBC Bank USA**, our company partners, including **Amy Hall, Cynthia Power, Dinc Urkun, Matt Thurston, Carrie Freiman, and Jessica Ozella.**

Lastly, we thank our student assistants who made fantastic contributions to this endeavor. Our thanks go to **Dylan Berry (MBA '19), Hannah Gotfredson (MBA '20), Ben Gottesdiener (MBA '20), Chana Rosenthal (EMBA '22), and Christine Tan (MBA '21).**



NYU | STERN

Center for
Sustainable Business

NYU Stern Center for Sustainable Business



Proving **the value of sustainability for business management and performance** at a time when people and the planet need it most

Preparing individuals and organizations with the knowledge, skills, and tools needed **to embed social and environmental sustainability into core business strategy**

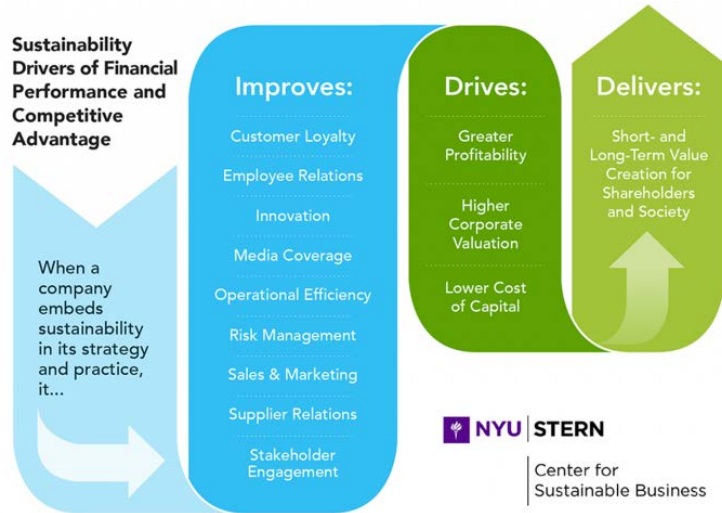


Proving the Business Case for Sustainability with ROSI



CSB's Return on Sustainability Investment (ROSI)

Methodology is used by corporate leaders and investors to bridge the gap between sustainability initiatives and financial performance





- **Sustainable Share Market Index™** reveals that sustainability-marketed products are responsible for more than half the growth in CPGs from 2015 to 2019, and this growth continues despite the COVID-19 pandemic.



- **Quality Jobs and Worker Wellbeing** explores whether investing in improving the quality of employment is beneficial for corporate performance and investor returns using data provided JUST Capital and Arabesque.



- **Invest NYC SDG Initiative** aims to engage the private sector and drive financing toward creating a more sustainable, inclusive and resilient New York City.

Education and Career Development for Current and Future Business Leaders

Undergraduate



- Sustainable Business Concentration and 20+ electives
- Annual Sustainability Careers Boot Camp, past sponsors HSBC and PwC
- Career panels and recruiting events
- Stern Program for Undergraduate Research (SPUR) focused on sustainability topics

Graduate



- Sustainable Business and Innovation Specialization and 25+ electives
- Summer Fellowship in Sustainability and Human Rights
- Case competitions in the social impact and sustainability space
- Consulting projects with outside companies on sustainability-related business challenges

Professional



- Certificates in Corporate Sustainability, Sustainable Finance, and Sustainability Training for Business Leaders
- Custom tailor a program for your organization that equips business leaders with sophisticated sustainability-based management skills
- Opportunities for alumni to network and share thought leadership



NYU | STERN

Center for
Sustainable Business