Building the Financial Case for Return on Sustainability Investment

Tensie Whelan
Clinical Professor of Business and Society
Director, NYU Stern Center for Sustainable Business
Today’s Headlines

**FORTUNE**  Why Milton Friedman Was Wrong

*Shareholder Value Is No Longer Everything, Top C.E.O.s Say*

**Forbes**

Purpose At Work: Why BlackRock’s CEO’s Letter Is A Wake-Up Call To All Brands

**The New York Times**

*The Revolution Comes to Davos*

At the anti-capitalist capitalist event, radical sentiments erupt in unexpected places.
Q: How to better track and assess the value of sustainability/ESG for business management and financial performance?

• Analyze where financial value is being created by sustainable practices and where it is being destroyed by short-term, unsustainable practices

• Integrate ESG metrics and financial metrics – together-- into improved accounting, reporting and decision-making systems

• Develop new partnerships and mechanisms to scale up financing of sustainability
Our Research Begins with This Premise

Return on Sustainability Investment (ROSI™) Framework

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

When a company embeds sustainability in its strategy and practice, it...
For Corporates:
• Embed sustainability together with ROSI into corporate business strategy, decision-making and accounting.
• Result: Better performing business, socially, environmentally, and financially

For Investors:
• Use ROSI to better assess where relative value exists in corporate ESG strategies and investments. Use as an overlay to understand ESG data.
• Result: Improved investor decision-making and valuation
Valuing the Opportunity for Sustainable Fashion Research Initiative
Valuing the Opportunity for Sustainable Fashion

Research Objective: To estimate the value of tangible and intangible benefits accrued by making strategic investments in more sustainable business practices

The Issue

• Apparel manufacturing has significant environmental impacts (i.e., land use, water use, biodiversity, etc.) and societal impacts (i.e., child and forced labor, low wages, etc.)

Project Outcomes

• Estimate the value of the benefits accrued from implementing the highest value opportunities for a more sustainable business
• An industry-wide monetization tool that can be used by the apparel industry to assess the value of benefits that could be accrued through more sustainable business practices

A National US Retailer
Monetizing Sustainability Initiatives – 18 Focus Areas

- Areas of focus chosen by partner companies

1. Substitute More Sustainable Materials
2. Improve Product Quality and Longevity
3. Reduce Impact of Chemicals
4. Increase Renewable Energy
5. Improve Energy Efficiency
6. Improve Water Efficiency

7. Improve Labor Conditions
8. Improve Supply Chain Traceability and Compliance
9. Sustainable Manufacturing Processes
10. Improve Vendor Packaging Sustainability *
11. Improve In-Transit Packaging Sustainability (from DC) *
12. Improve Consumer Packaging Sustainability

13. Improve E-commerce Sustainability
14. Leverage Circular Business Models
15. Improve Corporate Sustainability
16. Reduce Greenhouse Gas Emissions
17. Improve Sustainability Messaging
18. Invest in Corporate Philanthropy

Use of digital samples identified

* Impacts transportation and waste cost as well as carbon emissions

Called out separately but often embedded in other strategies
# Financial Benefits of Sustainability (Illustrative Subset)

## Sustainable Strategies
- Leverage circular business models
- Improve corporate sustainability
- Substitute more sustainable materials
- Improve supply chain traceability

## Sustainable Practices
- Apparel recycling program, taking back old clothes, refurbishing, and reselling
- Use digital samples
- Producing more sustainable material product lines
- Third-party certification

## Benefits
- Incremental store sales, sales of new line, reduced material cost, improved redemption, new customers
- Reduction of labor, materials, transport costs
- Improved sales, lower returns, free media
- Reduced fines, loss of sales
## Initiative Description

A large retailer is undertaking initiatives related to the use of sustainable materials in its private label products.

### Benefit (Cost)

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gross Margin Benefit</strong></td>
<td>Calculate per unit sale price and per unit cost of goods sold difference of Sustainable vs. non-Sustainable products</td>
</tr>
<tr>
<td><strong>Sales Growth</strong></td>
<td>Calculate unit sales volume difference of Sustainable vs. non-Sustainable products</td>
</tr>
<tr>
<td><strong>Returns Impact</strong></td>
<td>Calculate unit return volume difference of Sustainable vs. non-Sustainable products and multiply by average cost of returns (incl. discounting, handling costs, etc)</td>
</tr>
<tr>
<td><strong>Earned Media</strong></td>
<td>Calculate benefit of unpaid media exposures multiplying # of exposures by average media cost</td>
</tr>
<tr>
<td><strong>Impact on Customer</strong></td>
<td>Approaches described on the next slide</td>
</tr>
</tbody>
</table>

May include forecasts to calculate NPVs
## Monetization Method: Customer Impact of Offering More Sustainable Products

<table>
<thead>
<tr>
<th>Benefit (Cost)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Improve Customer Profitability &amp; Loyalty</strong></td>
</tr>
<tr>
<td>Measure the impact on improvement to behavioral attributes such as <strong>average # of store visits</strong>, <strong>average basket size</strong>, <strong>customer retention rates</strong>, and <strong>customer lifetime value</strong></td>
</tr>
<tr>
<td><strong>Expand Customer Base</strong></td>
</tr>
<tr>
<td>Calculate the sales impact of attracting new customers by measuring the impact of new sustainable products – for instance <strong>social media traffic</strong> (look at Instagram <strong>activity</strong>, <strong>clicks to website and conversion rates</strong>)</td>
</tr>
<tr>
<td><strong>Impact on Customer Acquisition Costs</strong></td>
</tr>
<tr>
<td>Calculate the impact on customer acquisition costs – for instance, a new product line may bring in new customers who have never purchased the brand before – <strong>estimate # of new customers</strong> and <strong>multiply by the average cost of acquisition</strong></td>
</tr>
</tbody>
</table>
## Initiative Description

Apparel recycling program, taking back old clothes, refurbishing, and reselling them.

<table>
<thead>
<tr>
<th>Cost</th>
<th>Benefit</th>
</tr>
</thead>
</table>
| **Direct Item Acquisition Cost** | Cost of gift card given to clothes donors  
*Multiply cost of gift card times number of items donated to takeback program* | Incremental sales related to incremental in-store traffic  
*Calculate sales from customers who also donate clothes in transaction*  
**Redemption Rates on gift cards**  
*Compared to other coupon offers* |
| **Reverse Supply Chain** | Costs associated with taking items back and refurbishing for resale  
*Calculate shipping, warehousing, refurbishment and recycling (non-sellable items) costs associated with taking items back* | Reduced material costs related to use of recycled goods –  
Recycled material product line, over-dyed and re-sewn goods and recycled (fiber-to-fiber) –  
*by multiplying weight of recycled goods multiplied by average cost of virgin materials less cost of recycling* |
| **Reselling Process** | Direct operating costs of takeback program sales channel  
*Calculate the direct operating cost of takeback sales channels (i.e., marketing, website costs, dedicated store costs, etc)*  
Direct operating costs of recycled material product line, over-dyed and re-sewn goods and recycled (fiber-to-fiber)  
Cost of disposing of unused goods to recyclers for shredding | Sales from takeback program sales channel  
*Calculate aggregate revenue of items from various sales channels (i.e., online, dedicated stores, racked in stores, pop-ups)*  
Sales from recycled goods - Recycled material product line, over-dyed and re-sewn goods and recycled (fiber-to-fiber)  
Calculate aggregate revenue of recycled items from various sales channels |
| **Customer Impact** | Does program help acquire customers and/or customer loyalty?  
*Calculated customer acquisitions related to takeback program and multiple by the lifetime value of a brand customer*  
**Is there a benefit – earned media?** |
For questions and suggestions, please get in touch.

Elyse Douglas  
edouglas@stern.nyu.edu

Kevin Eckerle  
keckerle@stern.nyu.edu
Quality Jobs and Corporate Financial Performance Research Initiative
Quality Jobs and Corporate Financial Performance

Research Objective: To explore whether investing in improving the quality of employment is beneficial for corporate financial performance and investor returns.

The Research Gap:
- Often disinvestment in employees is driven by financial considerations, but academic research has historically focused on policies and procedures relating to a safe workplace or employer-paid healthcare.
- Job-related metrics such as fair pay or workplace discrimination are only recently available on a big data scale.
- The question of whether investments in quality jobs improve corporate financial performance remains unanswered.

Research Initiative:
- Develop a novel framework that defines quality jobs (through security, viability, and flexibility) and assess the Russell 1,000.
- Analyze the relationship of quality jobs and business performance with unique datasets from our partners Arabesque and Just Capital.
- Supported by Prudential and Robert Wood Johnson Foundation.
Conceptual Framework (preliminary): Relationship Between Quality Jobs and Financial Metrics

Control variables
Size (sales); value (book-to-market); etc...

Mediating variables
R&D investments; customer satisfaction; etc ...

Quality Jobs (as measured by ESG data providers and CSB primary research)

Financial success defined by
• market-based measures (e.g. Tobin’s Q)
• accounting-based measures (e.g. Return On Assets)

Indicators from third party ESG data providers, e.g.
• Employment Quality
• Diversity
• Training and Development
• Labor Rights
• Compensation

CSB framework derived from JUST Capital metrics (illustrative examples)

Security
• Pays a living wage
• Worker safety fines
• Pension and healthcare benefits

Flexibility
• Work-life balance rating
• Education & training
• Career opportunities

Viability
• Ethical violations
• Creates US jobs
• CEO pay/ratio
• Supply chain/ human rights

In a longitudinal setting we also control for unobserved, time-constant effects such as company history.
Each chart is a scatterplot between return on assets and employment quality (an Arabesque feature) by sector (MSCI The Global Industry Classification Standard) overlaid with the line of best fit (correlation).

This illustrative chart only shows associations but our model will aim for more causal explanations.
For questions and suggestions, please get in touch.

Tracy Van Holt
tvanholt@stern.nyu.edu

Ulrich Atz
uatz@stern.nyu.edu
Invest NYC SDG Initiative
NYU Stern Center for Sustainable Business launched the first multi-stakeholder initiative engaging private sector finance to advance the UNSDGs and create a more sustainable, inclusive, and resilient NYC.
Our Mission

- Facilitate private sector engagement and financing of concrete investable projects
- Suggest government policy and finance mechanisms
- Create a roadmap for other cities in the US and globally
With these focus areas, we hope to: reduce GHG emissions, create jobs, support a circular economy, address food insecurity, and mitigate and prepare for the impacts of climate change.
Potential Projects

The Built Environment
1. Unlock PACE financing to support Climate Mobilization Act mandated energy efficiency in NYC’s buildings, which contribute to more than 70% of the City’s GHG emissions
2. Create high-profile demonstration project(s) using PACE to implement a full energy efficiency package
3. Build an efficient green job training and placement business to meet the demands of re-engineering and maintaining NYC’s built environment

Waste
1. Expand infrastructure for reclaiming organic waste, which makes up 40% of NYC’s waste stream, through anaerobic digesters (waste to energy), aerobic systems, and composting technology, looking to non-utility scale
2. Develop new paper pulp offtake facilities to recycle the ~27% of waste that is paper in NYC

Climate Resilience
1. Create an early digital warning system for non-coastal flooding and heat emergencies in NYC
2. Build delivery of smaller scale battery storage systems for climate emergencies.
Potential Projects

Renewable Energy
1. Develop a large scale geothermal installation in affordable housing
2. Work with NYC to jumpstart solar through PACE financing
3. Create a renewable energy + storage model for peaker plant replacements

Sustainable Mobility
1. Develop fast-charging infrastructure for broad EV adoption
2. Build private adoption of Last Mile EV in delivery systems

Food and Health
1. Deploy agriculture technology in NYC to grow sustainable food wanted by NYC’s food insecure population
2. Build a “food as medicine” program in NYC
You can help us:

- Join our team of finance advisors
- Share potentially investable opportunities in NYC

Invest NYC SDG Director: Marianna Koval, mkoval@stern.nyu.edu
Corporate Engagement with Students

We welcome corporate partners to work with our students on experiential learning, or career development.

If you’d like to discuss projects, internships, or full-time roles for undergraduates or MBAs further please be in touch!

Sophie Rifkin
srifkin@stern.nyu.edu

Current Corporate Partners