

MESM 2008 Group Project Proposal:

Shoe Recycling Options for Simple Shoes

PROPOSER

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STATEMENT

Simple Shoes (Simple) has a history of comfortable, laid-back footwear. In Fall of 2005, Simple employed a new global mission to reduce its ecological footprint. Simple also launched a new line of shoes made from sustainable materials, called Green Toe, which elevated the level of footwear design, engineering, and production. Simple is committed to making all of their products 100% sustainable and will continue to pursue sustainable practices and solutions that support this mission. For example, a shoe “take-back” and recycling program would create a “cradle-to-cradle” life cycle reducing waste production and raw material consumption. A recycling program could ultimately influence the original design of shoes in order to best utilize the end of life materials.

OBJECTIVES

The objectives of this study would be to use Cost Benefit Analysis and Life Cycle Analysis methods to:

- Assess the reusability, recyclability, and compostability of materials used throughout the product line.
- Identify the necessary design, development, implementation, marketing, and maintenance of a shoe take-back recycling program.
- Evaluate the role of the retailer in collecting used shoes.
- Assess collection options, such as retailer collection bins, distributing envelopes, etc.
- Investigate the potential existence of public health issues and stigma.

SIGNIFICANCE

An evaluation of a shoe take-back and recycling program would:

- Prioritize sustainable materials in terms of how recyclable and cost-effective they are in a “cradle-to-cradle” life cycle.
- Reveal a competitive advantage for Simple in the “sustainable footwear” market.
- Give credibility and leverage to Simple as the leader in “sustainable footwear,” with potential to influence the entire shoe industry.
- Reveal possible shoe take-back options for Ugg and Teva products (also Deckers brands).
- Encourage conscientious consumerism.
- Promote reductions in waste diversion and raw material consumption.

BACKGROUND

With all the over-built, over-hyped products out there, it's pretty hard to find comfortable shoes that you can live with. So we started Simple, your stereotypical, anti-stereotype brand

offering good shoes and a big dose of reality. About a gazillion pairs later...give or take a few...we've managed to learn a few things. Well, actually a lot of things. And none more important than this: HOW we make our shoes is just as important as WHY we make them...we have to find more sustainable ways of doing business. Which pretty much is where we are today...at the crossroads of here and now, aware of our responsibility to the planet while trying to pay the bills. The nice little shoe company [is] getting in touch with its inner hippie...Sometimes our progress is notable while at other times the improvements are harder to come by. The important thing is we're committed to making our product 100% sustainable.¹

In addition to influencing shoes, Simple is leading its umbrella company, Deckers Outdoor Corp. (Deckers), down a more sustainable path with environmentally friendly improvements to the company's business model. Simple also wants to influence the shoe industry, which is not considered environmentally friendly. Proactive influence includes hosting industry forums to discuss environmental topics and solutions. Passively, Simple leads as an example by supporting environmental NGOS and sponsoring environment-related events.

In recent years, textile-producing companies have been adding product take-back and recycling programs. The drivers of these programs range from corporate responsibility to legislation requirements, and different programs reveal different advantages:

- Patagonia's Common Threads Garment Recycling is a take-back program of used Capilene base layers. Patagonia worked closely with their Japanese polyester manufacturer to create the necessary recycling technology. Not only does the recycling prove to reduce the amount of raw materials consumed, waste stream, and greenhouse gases emitted, it also adds to the amount of recycled material in Patagonia's product line.²
- Nike's Reuse-A-Shoe Program grinds old sneaker outsole rubber, midsole foam, and upper fabric to make alternative sport surfacing products for basketball and tennis courts, soccer and football fields, running tracks, and playground floors.³
- Nokia's cell phone recycling program brings value and customer loyalty to their products, but the problem lies in the take-back process and privacy concerns. Legislation to reduce electronic waste was a big driver for Nokia to implement this program.⁴

STAKEHOLDERS

- Simple Shoes
- Deckers Outdoor Corp.
- Retailers
- Consumers
- Footwear industry
- Landfills

APPROACH AND AVAILABLE DATA

¹ *Our Brand Statement.* <http://www.simpleshoes.com/about/index.aspx?g=about>

² http://www.patagonia.com/pdf/en_US/common_thread_exec_summary.pdf

³ <http://www.nike.com/nikebiz/nikebiz.jhtml?page=27&cat=reuseashoe&subcat=us>

⁴ <http://www.nokia.com/A4138112>

Approach

Use Life Cycle Analysis to better understand the environmental impact of designing, producing, distributing, selling, using, and disposing of a pair of shoes. Brainstorm potential uses for post-consumer materials with Simple's product development and design personnel. Perform Cost-Benefit Analysis to determine a cost-effective shoe take-back and recycling program. Conduct a public survey to determine public reaction to recycling footwear and wearing recycled footwear.

Data

- Amounts of materials used for a given season (available from Simple personnel).
- Associated costs of the consumed materials (available from Simple personnel).
- Market research about existing take-back programs.
- Information about materials and associated processes.

DELIVERABLES

A final report and presentation would:

- Summarize environmental impacts of a pair of Green Toe shoes,
- Summarize key features of the ideal "take-back and recycling program" and ideal recyclable shoe,
- Assess public opinion of recycling shoes,
- Evaluate the cost-effectiveness of a shoe take-back and recycling program.

This report will also include recommendations for collection methods, marketing ideas, and options for post-consumer materials.

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CLIENT

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ANTICIPATED FINANCIAL NEEDS AND SOURCES OF SUPPORT

- Possible summer internship for 1 or 2 project members.
- Modest supervision and provision of necessary data.