Sustainable Solutions for Used Clothing: The Case of Overflow Thrift Store in Ames

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Background

- “Almost 100% of textile-based products can be recycled, yet, currently, the majority of them ends up in landfills. The current rate of overall waste recycling and composting in the US is only around 34%” (Williams, 2015)
- Waste volumes are growing every year (Kunz et al., 2016)
- An average U.S. consumer disposables 100 pounds of clothing and textiles every year (Kunz et al., 2016)
- “23.8 billion pounds of textile and clothing go to U.S. landfills every year” (Goodwill Industries International, n.d.)
- Many of the textile products given to nonprofit organizations end up in landfills. The Council for Textile Recycling was created to increase recycling efforts for textiles so they do not end up in landfills, but it is still a problem (Chen & Burns, 2006)

Purpose & Methods

Purpose of Study
1. To examine current practices to deal with disposed apparel products
2. To identify the most sustainable and practical strategies to dispose of unsellable apparel

Methods
- Interview method was used to identify specific challenges faced by Overflow Thrift Store
- Research method was used to analyze books, academic journals and industry practices
- The widely used waste disposal hierarchy served as a framework to organize and analyze the data collected

Definitions
- Reuse: Finding a new application for an apparel product
- Recycle: Using parts of the whole or the whole of an apparel product to make a new product
- Recover: Processing an apparel product at the end of its life into a new form, into a raw material

Stages & Most Preferred Practice

<table>
<thead>
<tr>
<th>Stages</th>
<th>Most Preferred Practice</th>
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<tbody>
<tr>
<td>Reuse</td>
<td>Certified Non-Profit, 501c3</td>
</tr>
<tr>
<td>Recycle</td>
<td>Donate high valued products</td>
</tr>
<tr>
<td>Recover</td>
<td>Create closed-loop cycle</td>
</tr>
<tr>
<td>Landfill &amp; Incineration</td>
<td>Create products to create alternate forms of energy</td>
</tr>
</tbody>
</table>

Sustainability Matrix: Business Guide for Disposing Textile-Based Products

<table>
<thead>
<tr>
<th>Stages</th>
<th>Practice</th>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reuse</td>
<td>Pick up at customer site</td>
<td>Easy to implement</td>
<td>The business that is not interested</td>
</tr>
<tr>
<td>Reuse</td>
<td>Centralize collection</td>
<td>Easy to control the cycle of buying more and more</td>
<td></td>
</tr>
<tr>
<td>Recycle</td>
<td>Collect from other countries</td>
<td>Make a closed-loop cycle</td>
<td>High cost and not cost-effective practice</td>
</tr>
<tr>
<td>Recover</td>
<td>Collect materials</td>
<td>Control process waste management</td>
<td></td>
</tr>
</tbody>
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Industry Examples

- de-brand
- Chicago Textile Recycling
- US Composting Council
- City of Ames: Resource Recovery System

Conclusions

Solutions are available for reusing, recycling and recovering apparel items

1. Very little research has been done on this subject
2. More research is needed to identify effective, sustainable, and feasible solutions
3. An industry-wide association should be developed to connect small businesses, to provide current information and offer viable resources

Overflow & Small Businesses

Increase brand awareness to increase sell-through and decrease apparel waste

1. Build marketing strategies
2. Social media marketing
   - Local farmer’s market
   - Events
3. Partner with local schools and universities
   - Increase awareness and attract customers
   - Increase volunteers by offering opportunities
   - Educate students on current issues

However, having unsalable apparel is unavoidable. So, small businesses should...

Develop partnerships with recyclers
1. Sell apparel items (Ex., Chicago Textile Recycling)
2. Host a drop box (Ex., USAgain)
3. Ship apparel items (Ex., debrand, Donate Stuff)

References