Assessing the Current Sustainability Profile of the Corrugated industry

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Panel Moderator – Christian Fischer

Panelists – Jane Bickerstaff, INCPEN
Guy McGuffin, Wal-Mart Canada
Joan Pierce, Colgate-Palmolive
Sustainability Dimensions and Perspectives

Sustainability has three dimensions for current actions that affect future generations:

- Profit: Economic viability and contribution
- Planet: Environmental stewardship and conservation
- People: Social responsibility and impact

Our Industry has always believed that sustainable practices enhance the health and vitality not only of society, but of our industry as well.
2011 Study Construct:
Evaluation of Corrugated Sustainability Positioning

- 1998
- 2004
- 2004
- 2008

- Review of Previous Research
- SWOT Analysis
  - Strengths, Weaknesses, Opportunities & Threats
- Survey Validation & Prioritization
- External Panel Analysis & Interpretation
- Identify Potential Focus Areas
## Economic Attributes

<table>
<thead>
<tr>
<th><strong>Strengths</strong></th>
<th><strong>Weaknesses</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Accepted/known material</td>
<td>• Over time, RPC or film may cost less</td>
</tr>
<tr>
<td>• Flexible use</td>
<td>• Reduction of components (secondary) desirable</td>
</tr>
<tr>
<td>• Able to tailor to specification</td>
<td>• Seen as cost for disposable component</td>
</tr>
<tr>
<td>• Printable /Graphics</td>
<td>• Wet strength concerns</td>
</tr>
<tr>
<td>• Cost effective solution to get the job done</td>
<td>• Commodity/low quality Image</td>
</tr>
<tr>
<td>• Able to reduce amount of material to min.</td>
<td>• Performance concerns (washing, forklifts, strength)</td>
</tr>
<tr>
<td>• No investment to change systems if current use</td>
<td>• POP, Retail Ready, Single package format changes, E-commerce</td>
</tr>
<tr>
<td>• Recovery value</td>
<td>• Value additions, i.e. moisture barrier</td>
</tr>
<tr>
<td></td>
<td>• Retail “cuts” cause waste</td>
</tr>
<tr>
<td></td>
<td>• Viewed as “old” material – not modern</td>
</tr>
<tr>
<td></td>
<td>• Lower cost flexible alternatives</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th><strong>Opportunities</strong></th>
<th><strong>Threats</strong></th>
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<tbody>
<tr>
<td>• Ability to optimize and engineer to product and distribution</td>
<td>• Cost reduction programs</td>
</tr>
<tr>
<td>• Total system cost modeling tools</td>
<td>• Advances in alternate design and re-usable, paperboard &amp; flexible systems</td>
</tr>
<tr>
<td>• Investment in better direct print technology for Retail Ready Packaging</td>
<td>• Extended Producer Responsibility</td>
</tr>
<tr>
<td>• Investment in mass customization printing technology</td>
<td>• Globalization expansion and offshore production</td>
</tr>
<tr>
<td>• Safety/security/tracing opportunities</td>
<td>• Ability to source certified materials (SFI / FSC)</td>
</tr>
<tr>
<td>• Mini mills- localization strategies</td>
<td>• High investment costs</td>
</tr>
</tbody>
</table>
## Economics – Strengths

**Internal**
1. Printable/Graphics
2. Cost effective solution to get the job done
3. Able to tailor to specification

**External**
1. Cost effective solution to get the job done
2. Accepted/known material
Economics – Strengths

**Internal**
1. Printable/Graphics
2. Cost effective solution to get the job done
3. Able to tailor to specification

**External**
1. Cost effective solution to get the job done
2. Accepted/known material
Economics – Weaknesses

Internal
1. Commodity/low quality image
2. Performance concerns
3. Packaging reduction initiatives

External
1. Viewed as old material/not modern
2. Performance concerns
3. Over time, RPC or film may cost less
## Economics – Weaknesses

<table>
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<tr>
<th>Internal</th>
<th>External</th>
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<tbody>
<tr>
<td>1. Commodity/low quality image</td>
<td>1. Viewed as old material/not modern</td>
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<tr>
<td>2. Performance concerns</td>
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<tr>
<td>3. Packaging reduction initiatives</td>
<td>3. Over time, RPC or film may cost less</td>
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</table>
Economics – Opportunities

**Internal**
1. Ability to optimize and engineer to supply chain
2. Total system cost modeling tools
3. Investment in print capability for Retail Ready Packaging

**External**
1. Ability to optimize and engineer to supply chain
2. Investment in print capability for Retail Ready Packaging
Economics – Threats

Internal
1. Cost reduction programs
2. Advances in alternate design and reusable systems
3. Extended Producer Responsibility

External
1. Extended Producer Responsibility
2. Advances in alternate design and reusable systems
Economics – Threats

Internal
1. Cost reduction programs
2. Advances in alternate design and reusable systems
3. Extended Producer Responsibility

External
1. Extended Producer Responsibility
2. Advances in alternate design and reusable systems
# Environmental Attributes

## Strengths
- Recyclable, fiber-based, renewable
- Total sum positive when shipping, etc considered
- Positive LCA data
- Value preservation of products
- Compostable
- Provides product protection to minimize waste
- Well-developed recycling processes

## Weaknesses
- Perception of waste; single use
- Renewability in question by consumers
- High bulk/volume
- Domestic US recycling market – much of collected corrugated exported to China
- Bulky to tear down for curbside recycling and at store

## Opportunities
- Check-off program/industry messaging
- More procurement of FSC / SFI / certified fiber
- Use of renewable energy for manufacturing facilities

## Threats
- Flexible packaging – where primary package supports own load
- Water conservation regulation
- Sustainability scorecards focused on weight reduction
- Localized distribution/product manufacturing
- More reusable / returnable case systems
- Potential impact of RFID on recyclability
- Impact of mixed use recycling streams on quality of materials
Environmental – Strengths

**Internal**
1. Recyclable, fiber-based, renewable
2. Value preservation of product

**External**
1. Recyclable, fiber-based, renewable
2. Value preservation of product
Environmental – Weaknesses

**Internal**
1. Perception as wasteful, single-use
2. High bulk/volume ratio
3. Bulky to tear down for curbside recycling and at store

**External**
1. High bulk/volume ratio
2. Bulky to tear down for curbside recycling and at store
3. Perception as wasteful, single-use
Environmental – Opportunities

**Internal**
1. Improved/increased industry messaging
2. Use of renewable Energy for manufacturing facilities
3. Use of certified fiber sources

**External**
1. Use of certified fiber sources
2. Use of renewable Energy for manufacturing facilities
Environmental – Opportunities

Internal
1. Improved/increased industry messaging
2. Use of renewable Energy for manufacturing facilities
3. Use of certified fiber sources

External
1. Use of certified fiber sources
2. Use of renewable Energy for manufacturing facilities
Environmental – Threats

Internal
1. Flexible packaging where primary package supports own load
2. More reusable usage
3. Sustainability scorecards focused on weight reduction
4. Water conservation regulation

External
1. Flexible packaging where primary package supports own load
2. More reusable usage
3. Sustainability scorecards focused on weight reduction
4. Water conservation regulation
# Social Attributes

<table>
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<tr>
<th>Strengths</th>
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</tr>
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<tbody>
<tr>
<td>• Sanitary</td>
<td>• Requires disposal/recycling labor</td>
</tr>
<tr>
<td>• Industry employs thousands</td>
<td>• Wet corrugated not sanitary</td>
</tr>
<tr>
<td>• Safety and security for products</td>
<td>• Safety concerns – knife use to open sealed packages</td>
</tr>
<tr>
<td>• Eases movement of goods, reduces physical effort</td>
<td>• Perceptions and realities – dusty and dirty</td>
</tr>
<tr>
<td>• Known material – has archetype recognition for childhood</td>
<td></td>
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<tr>
<td>• Technology applications to further extended shelf life/product value/safety enhancement</td>
<td>• Retail-driven decision making environment</td>
</tr>
<tr>
<td>• Communicate purpose and value to consumers</td>
<td>• More S/SP light-weighting reduces volume</td>
</tr>
<tr>
<td>• Easier opening and easier breakdown</td>
<td></td>
</tr>
<tr>
<td>• More focus on multi use vs. single use</td>
<td></td>
</tr>
</tbody>
</table>
Social – Strengths

**Internal**
1. Known material – has archetype recognition from childhood.
2. Safety and security for products
3. Eases movement of goods, reduces physical effort

**External**
1. Safety and security for products
2. Eases movement of goods, reduces physical effort
Social – Strengths

Internal
1. Known material – has archetype recognition from childhood.
2. Safety and security for products
3. Eases movement of goods, reduces physical effort

External
1. Safety and security for products
2. Eases movement of goods, reduces physical effort
Archetype in use by US Industry
Social – Weaknesses

Internal
1. Requires disposal/recycling labor
2. Safety concerns re: using knife to open
3. Perceived as dusty and dirty

External
1. Requires disposal/recycling labor
2. Wet corrugated not sanitary
Social – Opportunities

**Internal**
1. Communicate purpose and value to consumers
2. Make easier to open and breakdown
3. Use technology to further the perceived value of the product

**External**
1. Use technology to further the perceived value of the product
2. More focus on multi-use designs
Social – Opportunities

Internal
1. Communicate purpose and value to consumers
2. Make easier to open and breakdown
3. Use technology to further the perceived value of the product

External
1. Use technology to further the perceived value of the product
2. More focus on multi-use designs
Social – Threats

Internal
1. Retail-driven decision making environment

External
1. Retail-driven decision making environment
External Panel

Panel Moderator – Christian Fischer

Panelists – Jane Bickerstaff, INCPEN
Guy McGuffin, Wal-Mart Canada
Joan Pierce, Colgate-Palmolive
SWOT – Significant Differences

Re: Economics Strengths

• Printable/graphics

This corrugated strength received the highest rating from internal respondents yet was not perceived as such by the panel...why is that?
SWOT – Significant Differences

Re: Economics Weakness

• **Internal** focused on commodity/low quality image
• **External** focused on Viewed as “old” material, not modern

Do you feel these two issues are the same or does the industry have a falsely negative opinion of themselves?
SWOT – Significant Differences

Re: Economics Threats

• Cost reduction programs

This was recognized by the internal respondents as the biggest threat whereas you didn’t think so...putting yourself in their position why do you think this was rated a higher threat than reusables?
SWOT – Significant Differences

Re: Social Strengths

• Consumer Familiarity—Known material—has archetype recognition from childhood

Our internal panel placed this right along side safety and security for products yet none of you placed any priority on this attribute...do you feel it isn’t important with the consumer?
SWOT – Significant Differences

Re: Communications

• Social Opportunity – Communicate purpose and value to consumers

• Environmental Opportunity – Improved/increased industry messaging

The industry seems to feel some urgency to tell their “story” better why did this panel not perceive that as a priority?
Other Issues

• This SWOT was put together from research responses from a wide variety of audiences over several years...is there a significant attribute that you feel was omitted in any of the 12 categories?
Other Issues

• What impact will EPR have on corrugated in the next 5 years?
Other Issues

• What role do you see for science and technology for corrugated?
Other Issues

• How does Innovation fit with a traditional material like corrugated?