Sustainable Market Share Index™

Research on 2015-2020 IRI Purchasing Data Reveals Sustainability Drives Growth, Survives the Pandemic

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Tensie Whelan
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We reviewed consumer purchasing of sustainability-marketed products in 36 CPG categories comprising ~40% of the total CPG market* ($). Our findings are:

- Sustainability-marketed products delivered **54.7% of CPG market growth** (2015-2019) despite representing only 16.1% share of the category($) in 2019, up +2.4 ppts vs. 2015 (Pgs. 5,6 ). Sustainability-marketed products grew **7.1x faster** than products not marketed as sustainable (Pg. 7).

- Sustainability marketed products continue to **grow despite the COVID-19** pandemic (Pgs. 10-13).

- The market share of sustainability-marketed products aligns along a continuum based on perceived category functionality or efficacy (Pg. 15). Even in categories with low shares, shares of sustainability-marketed products increased.

- Sustainability-marketed branded products enjoy a **significant price premium of 39.5%** vs. their conventionally-marketed branded counterparts, with a widening premium of +5.3 pts vs. 2014 (Pgs. 17-20).

- Per capita, the top 5 states for purchases of sustainability-marketed products are NH, ME, MA,VT and CT (Pg. 22).

- Upper income, millennials, college-educated and urban consumers are more likely to buy sustainability-marketed products. In addition, Middle Income, Baby Boomers and Gen Xers contribute a significant percent of sustainable sales (Pgs. 24-27).

*Excluding alcohol and tobacco. **Weighted by $ Sustainable Sales of categories examined
Consumer packaged goods (CPG) companies are responding to changing generational expectations, including for more sustainable product offerings, yet understanding of sustainable purchasing trends is limited.

The NYU Stern Center for Sustainable Business partnered with IRI, who provided the data pro bono, to assess the following:

1. Have purchases of sustainable products increased over time?
2. Have sustainable purchases been impacted by COVID-19?
3. Are there specific product categories for which the purchases of more sustainable product options out- or under-perform less sustainable alternatives?
4. What is the impact of price on purchases of sustainable products?
5. Are there geographical differences in sustainable purchasing?
6. What is the demographic profile of the sustainable purchaser?

Note: This study represents an updated and significantly expanded review of consumer purchasing first presented in March 2019.
Research Question 1:
Have purchases of sustainable products increased over time?

Research Result:
Not only are sustainability-marketed products growing but they also are contributing to a disproportionate share of the CPG category growth.
Across all categories studied, sustainability-marketed products account for 16.1%* share of market ($) in 2019, up from 13.7%* in 2015.

* Shares updated due to CSB & IRI re-categorizations; based on 36 categories examined
Despite the fact that sustainability-marketed products are 16.1%* of the market, they delivered 54.7% of the CPG market growth (2015-2019).

* Shares updated due to CSB & IRI re-categorizations; based on 36 categories examined
Sustainability-marketed products grew 7.1x faster than conventionally-marketed products, and 3.8x faster than the CPG market.

Sustainability-marketed 4-YR CAGR: 5.86%
Total Market 4-YR CAGR: 1.56%
Conventionally-marketed 4-YR CAGR: 0.83%

Note: Based on 36 categories examined
In ~90% of individual product categories, the growth of sustainability-marketed products outpaced the growth of their respective categories.

*Note: Actual sales growth for sustainability-marketed products in these categories from 2015-19 were 1019%, 901%, 545%, 449%, 280%, 197% and 160%, respectively.*

* Paper towels, cups and plates, toilet tissue and paper napkins lost share to private label. Because we did not have visibility into private label to ascertain if there were claims regarding sustainability, we had to assume they were not marketed as sustainable. So, in fact, if private labels were making claims of sustainability (as we have observed they do on shelf), these categories may not have seen share decline of sustainability-marketed products.
Research Question 2:
Have sustainable purchases been impacted by COVID-19?

Research Result:
• Purchases of sustainability marketed products continue to grow in the face of the pandemic.
Both sustainability-marketed and total category sales grew significantly and similarly the week ending March 15th.
Shares of sustainability-marketed products grew significantly the week of March 15th and have continued to maintain share through mid-June
Paper goods, skincare and food items drove the greatest week to week share increases (week ending March 15 vs prior week).
Sustainability-marketed products now account for 16.8% YTD, +.6pts vs. 2019

* Shares updated due to CSB & IRI re-categorizations
** January-June 15th, 2020
Research Question 3:
Are there specific product categories where the purchases of more sustainable product options outperform or underperform less sustainable alternatives?

Research Result:
- Yes. Categories that demand high functionality (e.g., detergent) do not have a large percentage of sustainable purchases, but nevertheless experienced share growth.
- Conversely, categories with low functionality demands (e.g., dairy) have higher category consumption.
Sustainable Market Share Index™: Shares of Sustainable Products

<table>
<thead>
<tr>
<th>Category</th>
<th>&lt;5% Share</th>
<th>5%-20% Share</th>
<th>&gt;20% Share</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Diapers</td>
<td>Cereal</td>
<td>Toilet Tissue</td>
</tr>
<tr>
<td></td>
<td>Cookies</td>
<td>Crackers</td>
<td>Yogurt</td>
</tr>
<tr>
<td></td>
<td>Sanitary Napkins</td>
<td>Fresh Bread</td>
<td>Facial Tissue</td>
</tr>
<tr>
<td></td>
<td>Toothpaste</td>
<td>Floor Cleaner</td>
<td>Milk</td>
</tr>
<tr>
<td></td>
<td>Laundry Care</td>
<td>Soup</td>
<td>Bottled Juice</td>
</tr>
<tr>
<td></td>
<td>Laundry Detergent</td>
<td>Weight Control</td>
<td>Soap</td>
</tr>
<tr>
<td></td>
<td>Pet Treats</td>
<td>Paper Towels</td>
<td>Coffee</td>
</tr>
<tr>
<td></td>
<td>Pet Food</td>
<td>Salty Snacks</td>
<td>Natural Cheese</td>
</tr>
<tr>
<td></td>
<td>Energy Drinks</td>
<td>Vitamins</td>
<td>Skin Care</td>
</tr>
<tr>
<td></td>
<td>Carbonated Beverages</td>
<td>Frozen Dinner</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trash Bags</td>
<td>Dish Detergent</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Household Cleaner</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Deodorant</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cups and Plates</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Paper Napkins</td>
<td></td>
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</tbody>
</table>

2019 Sustainability-Marked Products $ Share of Category

- 0%
- 10%
- 20%
- 30%
- 40%
- 50%
- 60%
- 70%
- 80%
Research Question 4:
What is the impact of price on purchases of sustainable products*?

Research Result:
• Despite significant price premiums, sustainability-marketed products grew far faster than the conventionally branded players and had lower price sensitivity in 2/3rds of the categories examined.

Analysis conducted was among branded players and excluded store brand/private label; based on 36 categories examined.
Sustainability-marketed products enjoyed a sizeable price premium at 39%* over conventionally-marketed products, and increased +5.3 pts since 2014.

*Weighted by $ Sustainable Sales of categories examined; analysis excluded store brand/private label.
Price premiums ranged from 3% to over 150%. Only a few categories had a price discount vs. conventionally-marketed products.
Among branded players, sustainability-marketed products grew over 7x faster than conventionally-marketed products, indicating consumers’ willingness to pay higher prices.
Sustainable Market Share Index™: Price Sensitivity

Sustainability-marketed products had lower price sensitivity in most categories studied: Food categories had the greatest price leverage.

Price sensitivity is the % change in volume due to a 1% change in price.
Research Question 5:
Are there geographical differences in sustainable purchasing?

Research Result:
• Yes. The top 5 states in terms of per capita* basis spending of sustainability-marketed products are New Hampshire, Maine, Massachusetts, Vermont, and Connecticut; the bottom five are Mississippi, Utah, Texas, Alabama and Kentucky
• Measured by state-wide purchases, however, California, Florida, Texas, New York, and Pennsylvania top the ranking in terms of total sustainable dollars spent due to the size of the states.

*STI: PopStats; based on 36 categories examined
Top 10 States for Consumer Purchases of Sustainable Products Go “Green”

- Maine #2
- New Hampshire #1
- Massachusetts #3
- New Jersey #7
- Vermont #4
- Rhode Island #9
- Connecticut #5
- Delaware #8
- Florida #10
- Colorado #6

Per Capita Spending on Sustainability-Branded Products:
- Most
- High
- Average
- Low
- Least

Source: NYU Stern School of Business
Research Question 6: What is the demographic profile of the sustainable purchaser?*

Research Result:

• Millennials, upper income, college-educated and more urban cohorts are more likely to buy sustainability-marketed products.

• Baby Boomers, Gen Xers, upper and middle income, college educated and urban cohorts account for the bulk of the sustainable dollars spent.

Analysis conducted using IRI HH panel data; based on 35 categories examined
The younger the household, the more likely they were to buy sustainability-marketed products. However, most sustainability-marketed product purchases came from Gen X and Boomers.

<table>
<thead>
<tr>
<th>Millennials</th>
<th>Generation X</th>
<th>Boomers</th>
<th>Seniors &amp; Retirees</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Chart" /></td>
<td><img src="image2.png" alt="Chart" /></td>
<td><img src="image3.png" alt="Chart" /></td>
<td><img src="image4.png" alt="Chart" /></td>
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</tbody>
</table>

**Total CPG Sustainable Sales Composition**

<table>
<thead>
<tr>
<th>Generation</th>
<th>Total Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Millennials</td>
<td>25%</td>
</tr>
<tr>
<td>Generation X</td>
<td>32%</td>
</tr>
<tr>
<td>Boomers</td>
<td>33%</td>
</tr>
<tr>
<td>Seniors &amp; Retirees</td>
<td>10%</td>
</tr>
</tbody>
</table>

Chart read as: Millennials purchased a significantly higher percent (>1.2x) of their Carbonated Beverage purchases on sustainability-marketed products, than did Average HHs.
The higher the education, the more likely they were to buy sustainability-marketed products. Most of the sustainability-marketed product sales came from College graduates or those with some college education.

<table>
<thead>
<tr>
<th>Total CPG Sustainable Sales Composition*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post Graduate School</td>
</tr>
<tr>
<td>Graduated College</td>
</tr>
<tr>
<td>Some College</td>
</tr>
<tr>
<td>Graduated High School</td>
</tr>
<tr>
<td>Some High School or Less</td>
</tr>
</tbody>
</table>

* 7% had no female present

Chart read as: Female HH who attended Post Graduate School purchased a significantly higher percent (>1.2x) of their Carbonated Beverage purchases on sustainability-marketed products, than did Average HHs.
The higher the household income, the more likely they were to buy sustainability-marketed products. Upper/middle income made up the highest percent of sustainability-marketed product dollars spent.

Chart read as: Upper Income Households purchased a significantly higher percent (>1.2x) of their Carbonated Beverage purchases on sustainability-marketed products, than did Average HHs.
The more urban the residence, the more likely the purchases of sustainability-marketed products. County A accounted for just under half of the total CPG sustainability-marketed dollars spent.

Chart read as: County A purchased a significantly higher percent (>1.2x) of their Carbonated Beverage purchases on sustainability-marketed products, than did Average HH’s.
Early 2021, the NYU Stern Center for Sustainable Business will release:

- The full year impact of COVID-19 on sustainability-marketed product purchases.
- The impact of a narrowing price gap between sustainability-marketed products and conventionally-marketed products on volumes as well as a detailed analysis of price elasticity.
About the NYU Stern Center for Sustainable Business

The NYU Stern Center for Sustainable Business was founded on the principle that **sustainable business is good business**; delivering better financial results while protecting the planet and its people. We aim to help current and future business leaders embrace proactive and innovative mainstreaming of sustainability, resulting in competitive advantage and resiliency for their companies as well as a positive impact for society.

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Appendix
Methodology

Data:
- IRI Point of Sale and HH panel data in all measured channels in U.S. excluding alcohol and tobacco

Selection Criteria:
- 36 categories examined held the largest dollar volume; in a few cases, smaller categories were included to ensure fair representation of all major CPG segments
- 73,293 products reviewed; products with 0.00 dollar share of category were not considered unless identified as organic.
- Due to lack of visibility into private label product claims, private label was not included as sustainability-marketed, with the exception of organic private label in the food categories.

Sustainability-Marketed Products Determination:
- Identified all skus for each category marketed as sustainable with on-package communication, e.g. 3rd party certification (e.g. USDA Organic), containing organic ingredients, no phosphates, no phthalates, etc.
- Sustainability determination focused on the product itself, not the recyclability of the package.
- A very conservative approach was adopted. For example, the following was not considered sustainable:
  - Natural with no other sustainable identification
  - Recyclable packaging

Other Assumptions/Information:
- Products that were deemed sustainability-marketed in 2018 were considered sustainability-marketed in 2015. This likely depressed the growth numbers.
- We made no attempt to assess if products marketed as sustainable were, in fact, sustainable. Instead, we focused on whether the marketing of a product as sustainable would drive purchase.

All estimates and analysis in this paper based on Information Resources Inc., data are by the authors and not by Information Resources, Inc.