The Next Frontier: Leveraging Artificial Intelligence and Unstructured Metrics to Identify CPG Growth Pockets and Outperforming Brands
Winning in CPG is increasingly a race where the largest don’t necessarily have an advantage and the finish line is drawn closer at every turn. Increasingly, the race is dictated by speed and accuracy as the playing field is leveled off through an almost perfect flow of information and increasing channel disintermediation. In this ever-competitive race, a marathon is no longer defined by endurance alone but rather by a series of never-ending sprints in which only the fastest and nimblest will win the upper hand. Since 2013, more than $17 billion in CPG industry sales have shifted from large players to small ones (see Exhibit 1).

In a market that has long been a place where size has been a monumental advantage, why has there been such a drastic shift? Simply put, nearly everything about the CPG marketplace has been disrupted.

**CPG Market Disruption**

- E-commerce has established itself as a viable CPG channel …
- … thereby reducing barriers of entry and allowing smaller brands to reach consumers, without needing to fight for limited shelf space or making large investments on brand, leading to …
- … a playing field that has been leveled.

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**EXHIBIT 1**

Small players continue to capture share, but growth has slowed across all tiers.

<table>
<thead>
<tr>
<th>Percent of Total Store Dollar Sales</th>
<th>2013-2017 CAGR</th>
<th>% YTD 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extra Small</td>
<td>4.3%</td>
<td>4.9%</td>
</tr>
<tr>
<td>Small</td>
<td>3.6%</td>
<td>4.0%</td>
</tr>
<tr>
<td>Mid-size</td>
<td>1.9%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Large</td>
<td>1.1%</td>
<td>0.6%</td>
</tr>
</tbody>
</table>

$17B+ in industry sales have shifted away from large companies to smaller players since 2013.

Note: Mergers and acquisitions accounted for in company size categorization:
extra small = <$100M, small = $100M–<$1B, mid-size = $1B–$5.5B, large = $5.5B; excludes private label sales.
Industry fragmentation and the emergence of solid small and mid-size players offering products that anticipate consumer needs have spawned a flurry of mergers and acquisitions by larger players looking to remain competitive and place good bets on future growth opportunities. Such is the case of Lactalis’ acquisitions of Stonyfield and Siggi’s\(^1\); Nestlé’s purchase of the global rights to commercialize Starbucks’ ready-to-drink coffee at non-retail locations\(^2\); and Campbell Soup Company’s acquisition of Pacific Foods\(^3\).

In IRI’s recent *Crafting a Demand Portfolio Strategy by Identifying Hidden Growth Pockets to Win the CPG Zero-Sum Game*, we explored strategies for uncovering and validating white-space growth opportunities. These strategies would, for instance, uncover how Lactalis can determine whether growth in premium yogurt is sustainable; how Nestlé can decide to craft a coffee platform that expands from instant coffee to coffee pods and ready-to-drink coffee; and how Campbell can take a step into premium soup and on-trend offerings like bone broth.

This paper goes a step further, illustrating how to craft a winning advantage for CPG firms by quickly and accurately identifying:

- Where to play;
- Who to buy or draw inspiration from; and
- How to use a set of nontraditional, unstructured metrics and artificial intelligence to predict areas that will become future growth pockets before they manifest themselves among the traditional measured channels.

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1 PR Newswire, “Lactalis to Acquire Siggi’s to Further Grow the Unique Yogurt Brand,” January 2018
2 Food Navigator, “‘Strengthening #1 position in global coffee’: Nestlé acquires Starbucks retail brand,” May 2018
3 Campbell Soup Company press release, “Campbell Completes Acquisition of Pacific Foods,” December 2017
Where to Play Now

Artificial intelligence is already ingrained in many digital experiences. For instance, Google Search uses natural language processing (NLP) and deep-learning techniques to enhance a user’s search experience through smart-text suggestions, image recognition and continuous enhancement. When a buyer makes an Amazon purchase, machine-learning algorithms automatically generate additional purchase suggestions by instantly tapping into the millions of prior similar purchases by similar households. But until recently, this valuable tool has fallen short of successfully answering complex strategic questions, such as where a company should focus to achieve sustainable growth. With advances in technology and analytic know-how, this shortfall is rapidly becoming obsolete.

At IRI Strategic Analytics, we have piloted a new proprietary solution called IRI TrendSpotting. This solution leverages artificial intelligence and machine learning to identify white-space opportunities within the CPG arena. These opportunities can be focused or broad-reaching, and growth benchmarks are continually revised as smart algorithms “learn” from evolving trends. This is key, particularly when mining millions of data points to spot brands and categories that are performing above the norm and above overarching trends.

Leveraging the right inputs in the right context is a critical success factor.

In the past, generating this level of insights was an intensive and time-consuming process (often requiring weeks to analyze a single category), but now, through the use of artificial intelligence and machine learning, opportunities can be detected in just a few moments.

IRI TrendSpotting can identify a list of winning top companies, brands and products that are operating in sectors that are also showing unabated growth, known as growth pockets. For example, the $20 billion milk-based-dairy category declined 0.3 percent versus year ago, but within this category, the $800 million yogurt drinks market grew about 20 percent. Within yogurt drinks, Hispanic brands are outperforming competition because on-trend, fruit-forward flavors denote better-for-you attributes, an important consideration for Hispanic consumers. Understanding growth pockets like this will allow companies to redefine their portfolio breadth and depth.

Leveraging this type of output, IRI Growth Consulting works with clients to outline key strategic implications and identify overarching themes that lay the foundation for a holistic demand portfolio strategy that will maximize growth sustainability.

The IRI TrendSpotting solution is flexible and customizable to accommodate different parameters based on an organization’s objectives. For instance, some companies may be looking to participate in a particular growth pocket through big bets, while others may leverage a string of smaller acquisitions, known as a “string of pearls.”
The solution can also be leveraged to identify different types of growth, including: pure growth (not linked to incremental distribution); growth that results from distribution and incremental velocity; and growth that results from particular attributes and claims (see Exhibit 2).

For instance, IRI TrendSpotting was used recently to look into the snack bar category. By analyzing close to 600 brands and looking at 15 attributes with 200+ possible attribute variables/combinations, key acquisition candidates in the space were identified, including RXBAR, which was acquired by Kellogg’s in 2017 for $600 million. Key to this analysis was understanding high-potential brands’ leveraging claims, such as low-carb or high-protein, as well as flavors.

IRI TrendSpotting will be a foundational base for determining effective demand portfolio strategy, which provides valuable perspective on acquisition and innovation strategy. Our experience across various top-100 CPG firms has illustrated how results can translate into an actionable acquisition playbook and innovation road map to develop a differentiated competitive advantage.

**EXHIBIT 2**

Attribute TrendSpotting: a scalable, dynamic and real-time algorithm using machine learning to spot trends and anomalies.

**Pattern Recognition**
Use deep data mining techniques to identify sales patterns showing consistent long-term growth or short-term growth spurts.

**Trend Detection**
Separate pure trends from investment-related growth by relating patterns in sales to changes in causal drivers.

**Attributes That Matter**
Apply clustering algorithms on trending products using coded attributes to identify the hottest trends driving growth.

**Attributes Drivers**

Better-for-you claims have become a major short-term differentiator.

Source: IRI Strategic Analytics
Case Study

TrendSpotting Applied to Snack Bar Category

**Criteria Assessed:**
- Dollar Sales
- Volume Sales
- Product Attributes
- Distribution

**580 Total Brands**

**Data Cleaning**
- No Sales
- New Brands

**98 Clean Brands**

**TrendSpotter**
- Calculate Category and Brand Growth
- Set Upper and Lower Bound
- Classify Growth Buckets

**45 No Trend**

**35 Distribution Trend**

**8 Pure Trend**

**35 + 8**

**43 Pure and Distribution Trend**

**19 Very High Growth**

**9 High Growth**

**2 Low Growth**

**13 Very Low Growth**

*No Trend indicates that growth is not consistent and/or has no trend.*

**Trending Brands in Snack Bar Category**

<table>
<thead>
<tr>
<th>Brand</th>
<th>Category</th>
<th>$ Sales (Millions)</th>
<th>Y-O-Y Growth</th>
<th>Manufacturer</th>
<th>Manufacturer Sales ($ Million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLIF Kid Zbar</td>
<td>Nutritional/Intrinsic Health Value Bars</td>
<td>$61.7</td>
<td>18%</td>
<td>Clif Bar &amp; Co.</td>
<td>$810.2</td>
</tr>
<tr>
<td>RXBAR</td>
<td>Nutritional/Intrinsic Health Value Bars</td>
<td>$61.6</td>
<td>831%</td>
<td>Chicago Bar Co. LLC</td>
<td>$64.3</td>
</tr>
<tr>
<td>Nature’s Bakery</td>
<td>Nutritional/Intrinsic Health Value Bars</td>
<td>$60.8</td>
<td>32%</td>
<td>Bella Four Bakery</td>
<td>$63.4</td>
</tr>
<tr>
<td>Quest</td>
<td>Nutritional/Intrinsic Health Value Bars</td>
<td>$44.0</td>
<td>125%</td>
<td>Quest Nutrition, LLC</td>
<td>$214.8</td>
</tr>
</tbody>
</table>

Source: IRI Strategic Analytics
Where to Play in the Future

To be truly powerful in today’s complex and fast-moving CPG marketplace, speed and accuracy must be paired with foresight. Artificial intelligence and machine learning, coupled with advanced analytics, can provide a view on current growth pockets and outperforming brands across measured channels.

By incorporating a view on unstructured metrics, IRI Growth Consulting’s NextGEN methodology can help predict the next set of outperformers to expand a company’s acquisition lineup to include potential candidates that have yet to explode into measured channels. The cornerstones of our approach are three core areas (see Exhibit 3):

- Disruptive innovation
- E-commerce strength
- Digital and social momentum and sentiment

**Disruptive Innovation**
Carving a first-mover advantage in areas ripe for disruptive innovation often propels new brands and offerings to succeed. Disruptive innovation can be achieved in several ways:

- Solving for existing consumer needs through better and more innovative options. For instance, Banza,

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**EXHIBIT 3**

NextGEN metrics are evaluated across three areas.

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Source: IRI Growth Consulting
a chickpea-flour pasta with sales of $8.1 million and 23 percent growth, addresses the need for a healthier/protein-centric alternative to pasta.

- **Creating awareness to meet new and evolving consumer needs through new offerings.** For instance, KeVita, a line of probiotic drinks and fermented teas with sales of $118 million and growth of 47 percent, promotes gut health with benefits that were not previously a mainstream need.

- **Leveraging new ingredients, processes and forms of delivery.** For instance, NatureBox offers a unique delivery platform for a wide range of healthy yet indulgent snacks that target specific consumer needs, such as the paleo diet, workout-friendly, keto-friendly, vegan and more. The company leverages a subscription model and customized snack boxes, delivered as frequently as requested. Snacks are free from artificial colors and flavors, preservatives, corn syrup, hydrogenated oils and MSG. The brand earned sales of $1 million and growth of more than 29 percent last year⁴.

Oftentimes, brands that have achieved innovation leadership have started to promote their benefits through key food and beverage events, like Expo West, and have begun to show traction in the natural and gourmet channels.

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**E-commerce Strength**

Effective e-commerce strategies provide a distinct advantage in the CPG marketplace, particularly for new launches that bring differentiation to the game. E-commerce strength can be assessed based on metrics such as e-commerce sales, rank within Amazon’s top sellers and/or direct-to-consumer sales capabilities. For instance, OhYeah Nutrition’s line of protein bars and powders earned sales of $42 million and growth of more than 155 percent last year. E-commerce sales account for more than 15 percent of the manufacturer’s total sales⁵. Additionally, nimble brands like Manitoba Harvest, a line of hemp hearts, bites, seeds, protein and oil (earning sales of $1.6 million in e-commerce) appear in Amazon’s 2018 list of top sellers⁶. Strength and presence in e-commerce help highlight growth potential that is yet to be manifested in traditionally measured CPG channels.

**Digital and Social Momentum and Sentiment**

Detailed in IRI’s recent paper titled “Unspoken Shopper Behavior Predicts the Path to Growth,” social and digital momentum have become excellent predictors of future performance. It is well-known that the millennial generation, which accounts for one-quarter of the U.S. population today and will account for one-third of CPG spending by 2022 (more than $240 billion), is fully entrenched in social and digital media. Brands that have a strong digital presence have a major advantage with this growing shopper segment. To hit the mark, brands must focus on establishing presence (e.g., Google AdWords) but also effectively measure impact by monitoring and influencing consumer sentiment and/or growth pockets (e.g., mentions and likes on Facebook and Instagram, digital spend, share of internet voice, etc.), as well as degree of presence among top influencers (e.g., social sentiment). Often the level of social and digital engagement can also be directly linked to overall consumer advocacy, reflected in key metrics like repeat purchases. In this context, brands like Simple Mills ($15 million), Bare ($21 million) and NatureBox ($1.1 million) have all been able to show strong social and digital momentum, as well as repeat consumer purchases. Positive and growing trends in mentions, likes and social sentiment can offer significant insights into the potential growth and sustainability of a brand.

⁴ Note: Revenue may be larger, as unmeasured channels are not included.
⁵ IRI E-Market Insights® (2017)
⁶ IRI E-Market Insights™, Calendar Year 2017

The Next Frontier
The Junction of Present and Future

By understanding current (IRI TrendSpotting) and future (IRI NextGEN) growth pockets and outperforming brands, CPG manufacturers can focus their attention by creating a prioritized acquisition roster.

- **First Priority**: Top Performers – This list includes outperforming brands across unstructured metrics and measured traditional channels.

- **Second Priority**: Winners in Traditional Channels – These brands are outperforming brands across a more focused retail sector: grocery, drugstore, convenience and gas, mass merchandise and Walmart.

- **Third Priority**: Rising Stars – Brands that are performing well across unstructured metrics but have yet to make an impact on measured traditional channels.

Together these lists of potential acquisition candidates provide a good mix of companies and brands that can provide a short-term boost (first and second priority), as well as potential investment opportunities in outperformers that are yet to scale and realize their value. By constantly updating these lists, CPG companies have a concerted and proactive approach to corporate development that serves to focus resources on high-priority brands and growth pockets.

Acting on these priorities requires inspiration and discipline. With visibility into macro trends that are influencing the evolution of the marketplace, brands can build deliberate growth platforms. For instance, in the food and beverage sector, the quest for solutions that offer convenience, personalization, wellness and indulgence are really moving the needle.

At the intersection of wellness and indulgence, frozen better-for-you desserts could become an overarching growth platform. That platform may include specific growth pockets, such as better-for-you ice cream, frozen yogurt, better-for-you frozen novelties and plant-based desserts.

With growth platforms and outperformers identified, CPG companies must look to adjacencies for additional inspiration. For instance, IRI Growth Consulting recently partnered with several dairy manufacturers that were looking for innovation concepts to grow the challenged dairy space. By exploring dairy-based beverages, blended beverages, plant-based beverages and other related segments, IRI was able to identify several inspiration areas:

- Latte carbonation (driven by carbonated water growth and the popularity of carbonated cold brew)

- New packaging (e.g., glass containers; thin and tall cans)

- Blended functional beverages (e.g., nutritional-plus-energy beverages and functional lattes with added protein)
Redefining Where to Play Is the First Step Toward Healthy, Sustainable Growth

CPG manufacturers have been struggling in a low-growth marketplace for several years now, but pockets of growth certainly do exist. By identifying and prioritizing growth platforms and associated growth pockets and outperforming brands, marketers will have a powerful road map for future investment and acquisition activity. Acting on these opportunities will create a unique point of differentiation and growth while maximizing shareholder value.

IRI has helped several top-100 CPG companies identify their own unique core growth platforms and develop strategies to win through differentiated value propositions via extension of existing brands and/or by way of acquisitions.

Not all companies who know where to play understand how they can best find ways to participate in attractive areas. Having a realistic, timely and accurate representation of where to play now and in the future is foundational for a company’s growth strategy. Defining where to play will address the confusion that often arrives when too much information is available and challenges an organization’s line of vision. Based on the rigorous work we’ve done with CPG partners, we’ve come across a set of lessons learned when defining where to play that will help catalyze an organization’s path to growth:

- **Speed and accuracy are critical** in the race to define where to play. Size is less of a competitive advantage when the opponent is fast and nimble.

- Don’t stop with understanding what is growing now; **pre-empt competition by deciphering what will grow in the future**. And remember, time is of the essence.

- **Don’t miss out on the forest by paying attention only to the trees**. Understand overarching platforms as well as more micro-level growth pockets and outperformers to ensure a comprehensive growth strategy.
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