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Consumer Packaged Goods Practice

Want to improve consumer experience? Collaborate to build a product data standard

Here's how competitors can cooperate to unlock opportunities across the value chain.

by Kari Alldredge, Kanika Bansal, Okaryo Sho, and Valerie Skinner

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Derek sees an ad for low-carb cookies on social media. When he comes across the same cookies in his local grocery store, he checks online for reviews. The reviews are great, but the packaging looks different. Confused, he decides not to buy the cookies.

Consumers evaluate and purchase products today in an omnichannel world. Many prefer online channels for the convenience, but the inability to physically evaluate a product is one of the biggest barriers[1] for completing the purchase online. Of those who do complete the purchase, 64 percent[2] say they will return items due to mis-match in product information. Therefore, reliable, complete, and consistent product data plays an increasingly important role in enabling a seamless omnichannel experience.

Many senior leaders across consumer-facing industries are starting to recognize that their companies can standardize "foundational" data required to identify a product, such as brand name, weight, dimensions, and ingredients, to ensure consumers see the same information across channels, partners, and geographies.[3] Today this foundational data is defined and requested differently across retailers. Why? Historically, companies believed "more data was better" and sought to compete on foundational data, leading to unnecessarily high costs and complexity. Senior leaders are understanding that foundational data alone no longer differentiates themselves from competition, and this is only possible based on differentiated data, advanced analytics, and insights.

Establishing industry standards will enable more timely, accurate, and consistent exchange of foundational product data across brand owners and retailers. They will spend less time and money creating, correcting, and verifying foundational data, and they can repurpose valuable talent to design and deliver "differentiated" data, such as recipes, personalized offers, or recommendations. Consistent and reliable foundational data is a prerequisite for building differentiated data and advanced solutions deploying analytics, machine learning, and other technologies. Thus, standardizing foundational data is a first step to free up companies to focus on what matters more—building differentiated consumer experiences to compete better in the omnichannel world.

Unlocking the full value of this standardization will require industry-wide commitment to the case for change from retailers, brand owners, content service providers, and marketplaces across categories and geographies. Many stakeholders across the ecosystem will need to master new processes and collaborate in new ways. Senior executive commitment to this case for change represents the first step toward the coordination

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[1] *The Brief Blog*, "New survey: Shipping delivers most frustrations for online shoppers," blog entry by Taylor Stanton, February 23, 2019, rakutenintelligence.com.
[2] "U.S. online shopper reasons for returning online orders 2017," Statista, 2017, statista.com (subscription required).
[3] In this article, "data" refers only to product and transactional data, not customer data or any personally identifiable information.

and implementation required. Our research shows that the standardization initiative will benefit both retailers and brand owners, by simplifying the effort to manage foundational data, unlocking opportunities to deploy advanced analytics, and providing hundreds of millions of consumers with better omnichannel experiences.

Why leaders are focusing on data

Across industries, senior leaders now recognize data as a valuable strategic resource that can enable new opportunities, especially with the implementation of analytics. Consumer-facing companies, for example, are using advanced analytics in a wide array of commercial use cases, including pricing and trade-spend optimization, supply-chain and manufacturing efficiency, advanced inventory modeling, robotic process automation, and even workplace safety.

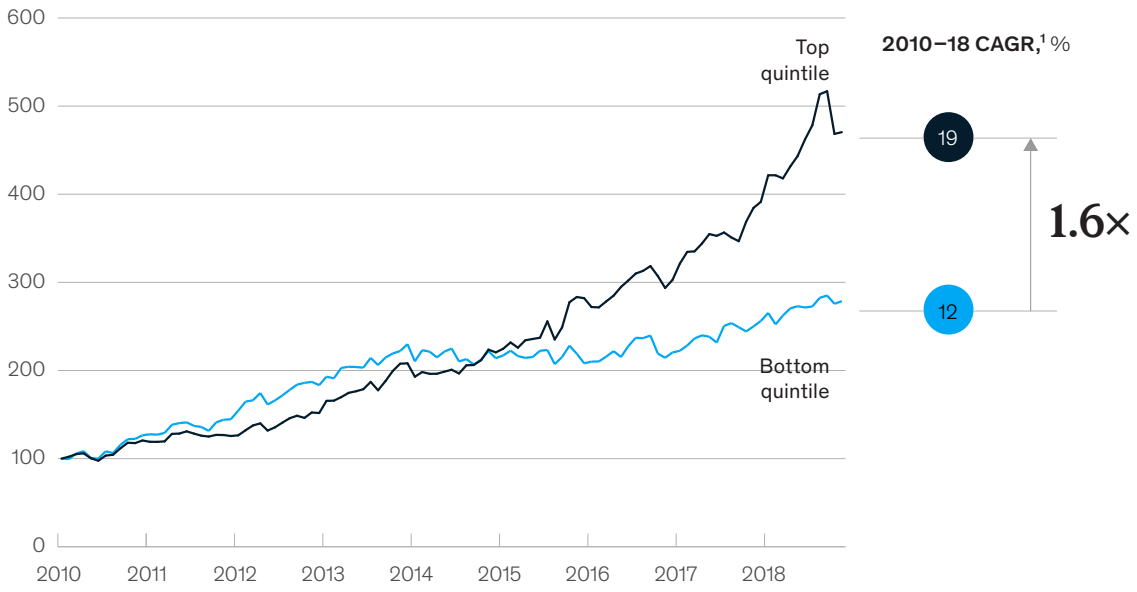
Their efforts are paying off. Consumer companies who lead in digital and analytics maturity[4] are making gains across the value chain, outperforming in total returns to shareholders (TRS), as shown in Exhibit 1.

Data forms the foundation for building these analytics capabilities. Our research shows that analytics leaders in the consumer industry outperform across key components of data maturity,

Exhibit 1

Consumer companies with high digital and analytics maturity deliver higher total returns to shareholders.

Total returns to shareholders, weighted by market capitalization, index (2010 = 100)



[1] Compound annual growth rate.

Source: S&P Capital IQ; Analytics Quotient by McKinsey

[4] Digital and analytics maturity refers to the comprehensive measure of companies' capabilities to enable the sustained application of digital and analytics, including talent, data and technology architecture, analytics tools, vision and road map, organizational setup, funding practices, agile adoption, and more.

as shown in Exhibit 2. They implement efficient data-governance practices and actively manage quality and availability of data across the value chain. The more standardized the data, the easier it is for companies to effectively manage it. Hence, standardizing foundational data is an important first step toward leading in digital and analytics maturity.

Managing product data today wastes resources across the retail ecosystem

Brand owners and retailers today spend time, money, and energy managing foundational product data, as shown in Exhibit 3. Different retailers require data from brand owners in a wide range of formats, which can require thousands of hours of labor that otherwise can be devoted to more valuable work, such as shopper analytics or new shopper experiences. Today's needless complexity presents other challenges, such as compromising data quality and leading to lost sales, such as the cookie sale to the hypothetical Derek.

Retailers, for their part, spend significant time verifying foundational data, collecting information from multiple sources to augment missing or inaccurate data, and synchronizing formats and requirements across online and offline channels.

A standard data model will simplify product data exchange

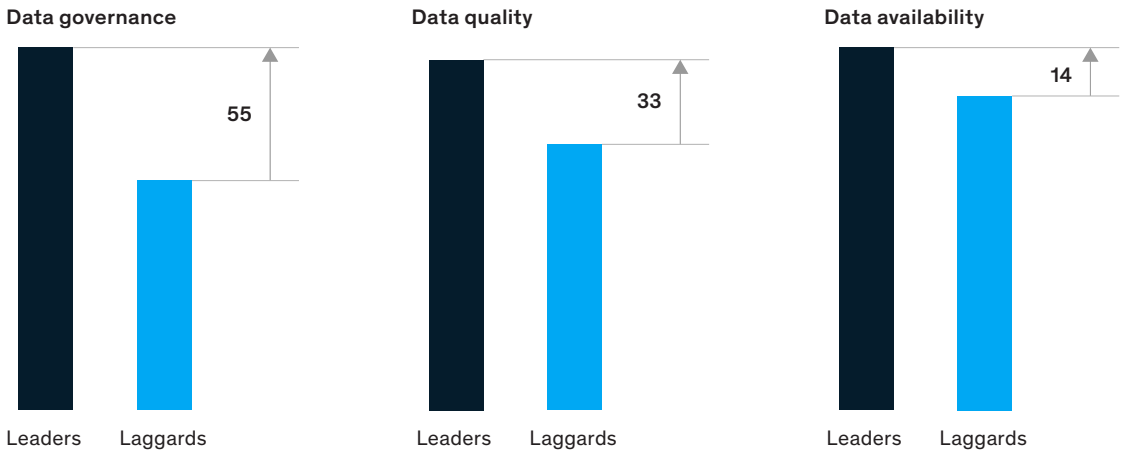
We believe industry leaders can work together to define a product data model that standardizes the list and definition of the foundational attributes of every product they exchange, including both structured and unstructured data.

They will face the challenge that data requirements differ widely across regions and product categories. For instance, food is identified as halal, kosher, or peanut free, while clothing requires color, fabric type, and size. A standard data model will therefore need to define requirements at different levels and be flexible enough to support local and category-specific attributes.

Exhibit 2

Consumer-company leaders in analytics tend to score higher than laggards in data maturity.

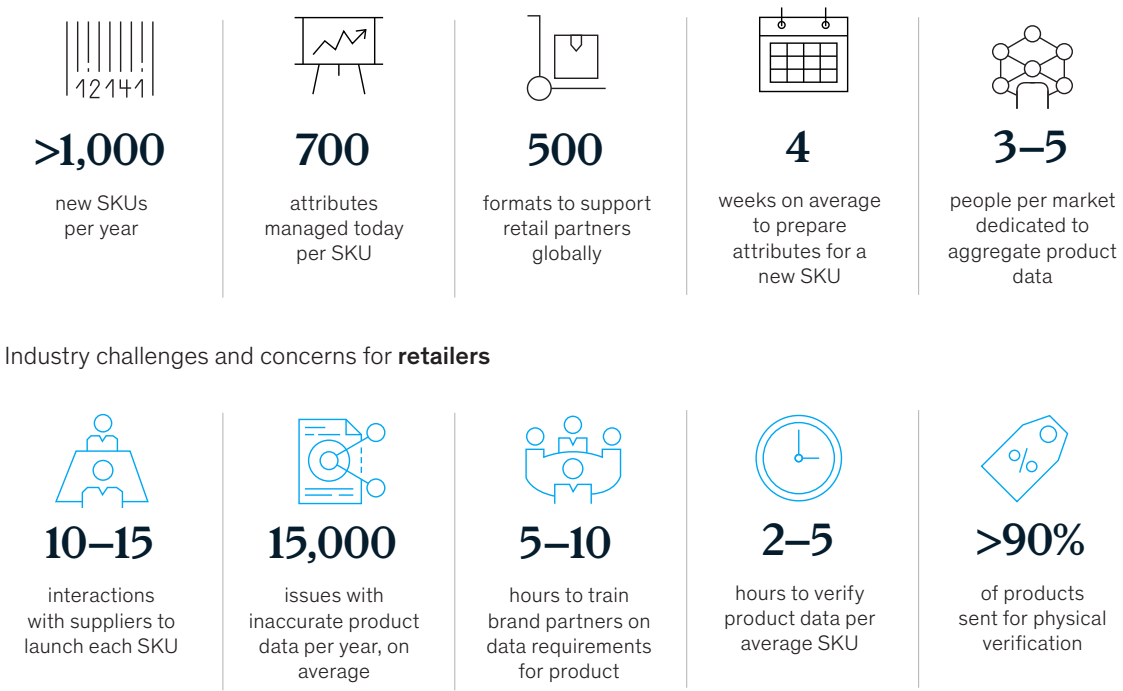
Analytics maturity, survey score, % difference between leaders and laggards



Source: Analytics Quotient by McKinsey; McKinsey Consumer Companies Survey

Exhibit 3

Managing and sharing foundational product data is costly and time consuming today.



Industry leaders can create formal mechanisms and even a national or global consortium to agree on standards and attributes. They might model their approaches on similar historic efforts to create industry standards. For example, GS1, a not-for-profit organization that develops and maintains global standards for business communication, created a layered approach to delineate attributes depending on category and local requirements, as shown in Exhibit 4. This approach, initiated as part of the Data Leapfrog Project of the Consumer Goods Forum, is being tested in the food and near-food categories with brand owners and retailers across Asia, Europe, North America, and South America. Once it is deployed for food and near-food, it can be scaled to other categories as well.

Developing and maintaining such a model will require industry commitment, collaboration, and governance with help from a global organization or consortium. It can follow the model of the Uniform Product Code Council (the precursor to GS1 established in 1973 for the US market) which created the barcode standard to identify items in grocery stores. Now 47 years later, this standard is deployed globally across 150 countries on everything from medicines to shipping containers.

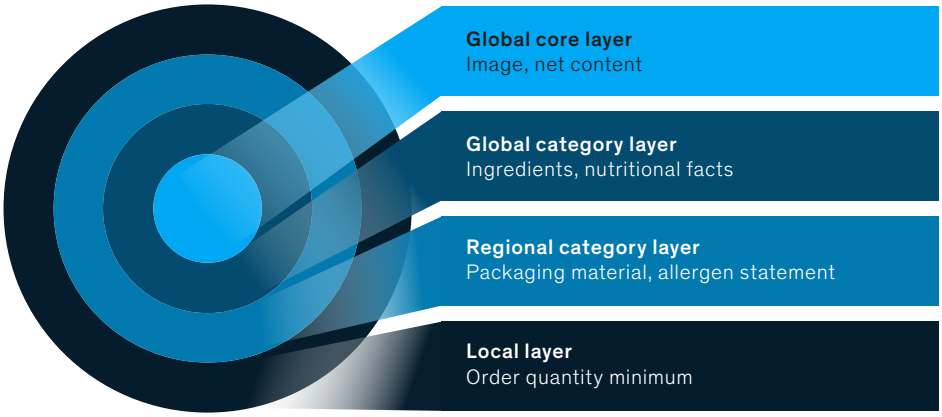
This central organization will need to define governance processes to provide global standardization, category agnosticism, model flexibility, and implementation feasibility. It will also need to help the industry champions who will lead the model's development, rollout, and ongoing maintenance.

The business case for a standard data model

If leaders can agree on a standard model and champion adoption across the industry, the omnichannel shopping experience will be more seamless, and managing and exchanging product data will be faster, easier, and cheaper. Industry stakeholders will have to work together to develop

Exhibit 4

GS1's approach uses layers to differentiate category, regional, and local requirements.



Note: GS1 is a not-for-profit organization that develops and maintains global standards for business communication.

the model for each category and look to best-practice examples where this global effort is already underway. Once developed, adoption will require one-time investments for technical implementation and change management to maximize impact and sustainability.

A standard data model will increase transparency for consumers and improve the omnichannel experience

With higher-quality, more-consistent product data, consumers will be able to search and evaluate products more easily, make better decisions, and trust retailers and brands even more. Based on forecasts of more than 15 retailers and brand owners interviewed, we expect first movers to see up to 5 to 10 percent improvement in online sales due to better data availability and product searchability in the near term.

Because consumers will know more about products before purchase, we expect retailers to receive fewer returns. This benefit will be especially important in categories such as apparel, where online sales and return rates can top 25 percent.

A standard product data model can speed product launches by reducing delays due to data gaps and errors. It can also lower barriers to entry for new players, since it will simplify partnerships between new brand owners and retailers and will help brand owners expand into new channels or markets with clearly defined local attributes.

In the long term, standardization will lead to increased consistency, context, and reliability of product data, which are prerequisites for creating value with machine learning, artificial intelligence, and other technologies. These technologies can provide powerful competitive advantages, such as personalized offers and dynamic pricing. But just as the quality of a meal depends on the quality of the raw ingredients, unlocking these capabilities depends on the quality of foundational data.

A standard model will increase operational efficiencies with faster, easier, and cheaper management and exchange of foundational data

Brand owners will require less effort to map and exchange data due to a reduction in the number of retailer formats. The brand owners polled expect a standard model to reduce the efforts required in data preparation by 40 to 60 percent—saving some companies tens of thousands of work hours a year.

Standardizing attributes and definitions will reduce the complexity of data management and governance and, over time, should reduce the number of data-related incidents and physical product verification requirements. As more data becomes available in standard formats, companies will learn more from advanced analytics.

Retailers polled expect a standard model to reduce the effort of verifying data completeness and quality by 30 to 50 percent. They will no longer need to create their own models for each new category or to train new brand partners on data requirements. Data management and governance will be simpler, and like brand owners, retailers will be able to harness the more uniform data to find valuable new insights and opportunities from advanced analytics.

Investments will be required to reap these benefits

First, peers will need to come together with the help of a global organization to define and develop a standard data model tailored to their category. For example, more than 30 companies in the food and near-food categories are now standardizing product data with the help of GS1, which is a 47-year-old global organization with presence in over 110 countries. Because GS1 is an independent entity experienced with cross-industry initiatives such as barcode identification, electronic data interchange (EDI), and radio-frequency identification (RFID), it is playing a neutral role and coordinating the effort across retailers, brand owners, IT-solution providers, and regulatory stakeholders to effectively solve for global and local nuances. Such a neutral, global organization with significant industry experience and influence will be required to successfully coordinate the effort in categories beyond food and near-food.

Once a model has been created for a category, most companies will need to make a one-time investment to adopt and implement the new model. They will need to begin by analyzing gaps between the data models they use today and the standard model. This analysis will help identify necessary changes in the systems they use to create and exchange product data, including external interfaces. This effort will vary based on a company's data-and-technology maturity and the extent of differences between their current models and the new one.

To complete implementation, companies will also need to update existing product data to comply with the new standard. Companies anticipate needing three to eight months per market to update data for existing products. They will also need to train relevant employees to meet the new standards.

Adoption and implementation will require robust change management and conviction from senior executives

In every organization, people change the ways they think and work only if they have compelling reasons. We recommend that senior leaders begin a transformation of this magnitude with powerful change stories that are relevant to the people in each department and function involved in the product life cycle, including both the creators and users of product data. Change agents at the front line can promote adoption from the bottom up, and leaders can celebrate the people who adopt the new model. Sustaining the change will require good governance, including clear implementation plans and compliance practices for the new standard.

Moreover, change would require acknowledgment, belief, and conviction from senior executives that the industry has an opportunity to collaborate on foundational data in order to compete more effectively through differentiated data, analytics-enabled insights, and automation.

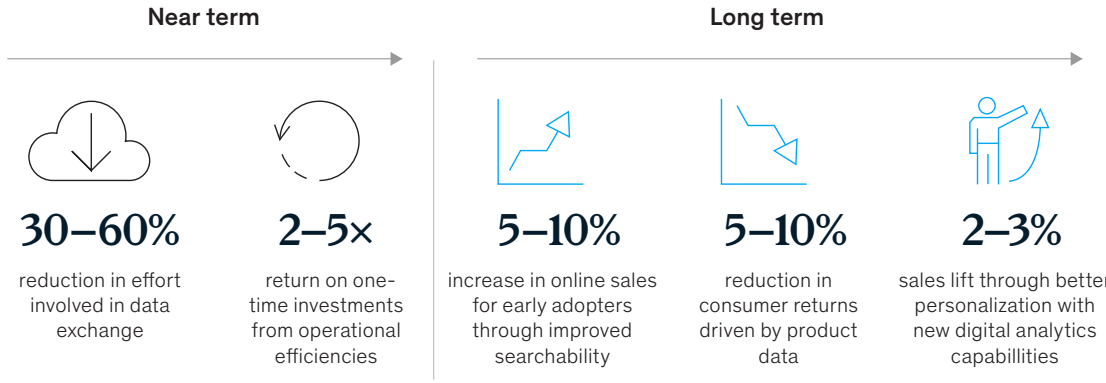
The benefits of adopting a standard data model

Although implementing a standard data model will require significant investment of time and resources,

A standard model will increase operational efficiencies with faster, easier, and cheaper management and exchange of foundational data.

Exhibit 5

Retailers and brand owners will benefit from the adoption of a standard data model.



brand owners and retailers alike should see positive returns, especially as partner, market, and category coverage expands, as illustrated in Exhibit 5.

For adopters, near-term operational efficiencies will offset the one-time investment required for implementation and pave the way to unlock real long-term benefits from improved consumer experience. As noted, investments and returns will depend on an individual company's technology and data-maturity level, the extent of differences between the current models and the new one, and the level of adoption across the industry.

Building a standard data model and large-scale adoption will require global coordination

Companies in every category that recognize the value of a standard data model should join with industry peers to create standards for their respective categories. In particular, companies with fast-growing omnichannel businesses, high rates of returns due to gaps or errors in data, and high efforts for exchanging product data should consider leading the conversation in their categories.

Success will require widescale adoption across geographies and stakeholders, however. To ensure industry-wide adoption, leaders will need to serve as ambassadors for their categories. A global consortium can coordinate industry efforts to define, implement, and manage the ongoing maintenance of the new standard.

Leaders can gain valuable first-mover advantages. As an example, they will be able to shape the category model to align with their own data and digital strategies. They can also adopt the new standards more quickly, improving online searchability and building a differentiated offering through more personalized experiences—keys to a competitive edge in an omnichannel world. To get started, companies should proactively revisit their data strategy and learn from other categories, such as food, that have already made progress in using product data to improve the consumer experience.

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More information about GS1's layered approach can be found at GS1.org

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