

The Future of Standards in the Consumer Goods & Retail Industry

Cut costs and meet new consumer needs: A view from the industry



Acknowledgments

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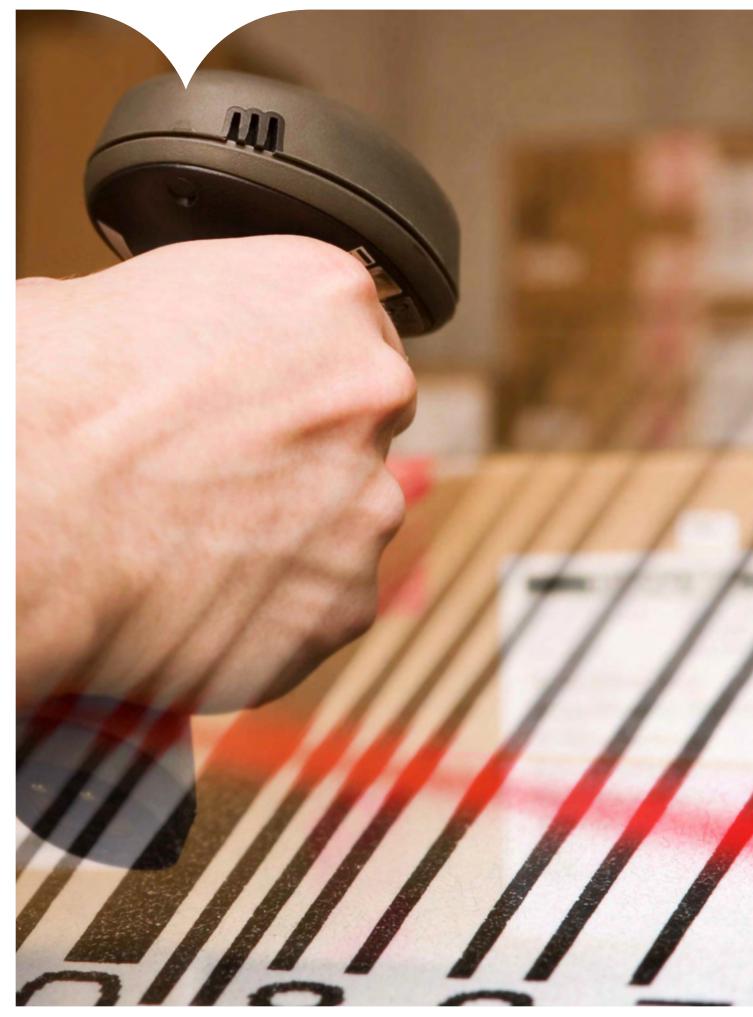
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Table of Contents

Acknowledgments	2			
Introduction	5			
Executive Summary	6			
The Current State of Standards	9			
Market Trends and Business Challenges	11			
Changes in Consumer Behavior	12			
Shifts in Buying Power	13			
Availability of New and Advanced Technologies	13			
Scarcity of Natural Resources	15			
Exploring the Future of Standards	17			
Introduce Standards to a Wider Range of Trading Partners	17			
Embed Standards in New Business Processes	17			
Develop New Standards Based on Industry Needs	18			
Improve the Guidelines and Services that Surround Standards	18			
Recommendations	21			
Develop Marketing Programs	21			
Introduce Simplified Standards Programs	21			
Leverage Existing Standards to Meet Consumer Communication Expectations	21			
Collect Sufficient Information about Product Origin	22			
Design a Common Set of Sustainability Metrics				
Develop Solutions to Ensure Data Quality				
Expand GS1's Role	22			

Conclusions

23



Introduction

Since the first barcode was scanned in 1974, GS1 standards have led to significant savings for the consumer goods industry, primarily through improved supply chain visibility. For example, research conducted by GS1 UK and the Cranfield School of Management revealed that barcode adoption in the UK saved the UK retail industry \pounds 10.5 billion in 2011.¹

The *2020 Future Value Chain* report² published by The Consumer Goods Forum and Capgemini has identified a number of emerging trends that will affect the consumer goods sector in the coming years. These conditions make it necessary for trading partners to once again collaborate around standards to advance their mutual interests.

In mid-2012 GS1 and The Consumer Goods Forum initiated research to identify the industry's priorities for future standards and services. This included in-depth interviews with more than 20 consumer goods and retail companies conducted by Capgemini Consulting. Participants included C-level executives, vice presidents, other senior executives, as well as analysts from top manufacturers, retailers and service providers across all regions of the world. They represented functional areas including supply chain, information technology and data management, and business process improvement.

Have current industry standards fully lived up to their promise? How will standards need to evolve in response to the trends shaping the industry? These are the key questions that this report seeks to answer.

¹ GS1 UK and Cranfield School of Management, 2011

² 2020 Future Value Chain, The Consumer Goods Forum and Capgemini, 2011



Executive Summary

Historically, GS1 standards have established a common language among manufacturers and retailers in the consumer goods industry. This has enabled a more efficient flow of goods and information, generating significant savings. But what is the future of standards?

Today's marketplace continues to be highly competitive. Consumers in mature markets are struggling in the tough economic climate. Excess inventory throughout the supply chain remains a problem. Pressures to reduce costs remain high. Could there be untapped potential in industry standards to address these challenges?

In parallel, the consumer goods industry is undergoing enormous transformation. Changes in consumer behavior, the availability of new and advanced technologies, shifts in buying power and scarcity of natural resources are expected to reshape the industry's supply chain at an unprecedented pace. These trends are challenging manufacturers and retailers to redefine how they collaborate with each other and with other trading partners. As industry collaboration models change, must standards also evolve?

Given these complex dynamics, GS1 and The Consumer Goods Forum asked Capgemini Consulting to investigate the current and future role of the industry's standards. Several key messages emerged from interviews with a representative sample of consumer goods manufacturers, retailers, service providers and analysts:

- The current portfolio of standards is considered fit for purpose. Where standards are presently deployed, no opportunities were identified for improvement to the standards themselves.
- A wider range of trading partners need to embrace standards to increase supply chain efficiency.

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The challenge is adoption [...]. There's no consistency across the board. We cannot standardize our operations until we get to a highvolume critical mass

> - Chief Information Officer of a Retailer

- Standards must be embedded into new process areas to meet consumer expectations, manage corporate risk and improve supply chain planning.
- New standards are needed to enable consumers to compare sustainability performance between products if desired.
- Improving the guidelines and services that surround standards will generate more value through greater consistency in implementation.

In light of a clear mandate to advance the industry's standards framework, it is recommended that stakeholders from across the industry undertake the following high-priority actions:

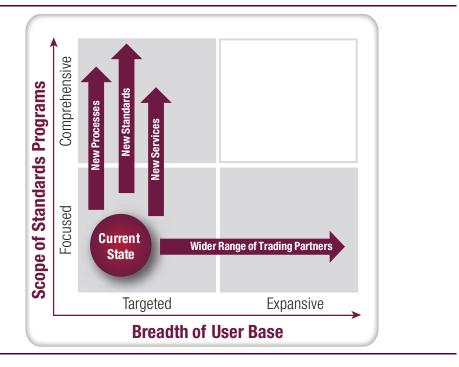
 Develop marketing programs targeted toward companies not making full use of standards

- 2. Introduce simplified standards programs for ease of adoption
- 3. Use existing standards to communicate product information to consumers
- 4. Collect sufficient information about product origin and route to market to minimize risk
- 5. Design a common set of sustainability metrics for the industry
- 6. Develop solutions to ensure data quality
- 7. Expand GS1's role from a standards defining body to a center of excellence in standards deployment

This report explores the needs and expectations for standards in the future in greater detail, and provides recommendations to guide their evolution.

Future of Standards: Expand breadth and scope

The industry acknowledges that the current system of standards has successfully laid the foundation for clear and understandable exchanges between companies. It is now time to multiply this capability by extending the reach of standards to a wider range of trading partners and a wider set of business processes beyond supply chain, while acknowledging the role that smarter consumers play in new standards and the requirement for improving the guidelines and services that support standards deployment.



The Future of Standards in the Consumer Goods & Retail Industry



The Current State of Standards

To determine how standards will need to evolve, we must first understand if the current portfolio of standards is meeting expectations. Although we expected to learn principally about the need for enhancements to existing standards or the desire to supplement existing standards programs, we heard a very different message.

Overall, today's standards are considered fit for purpose. Where standards are presently deployed, no opportunities were identified for improvement to the standards themselves. Instead, there was a universal call for greater adoption of current standards across the industry, as well as more consistent implementation of these standards.

Even among the industry's largest manufacturers and retailers, typically the heaviest users of standards, the full portfolio of standards is underused. While the use of Global Trade Identification Numbers (GTIN) and Electronic Data Interchange (EDI) were most frequently mentioned by the interviewees, other standards were less widely cited. The 2011 *Make your supply chain more efficient by using GS1 Global Standards* report³, by IBM and The Consumer Goods Forum, found that only two of the measured standards have adoption rates greater than 90%. As a result, the positive network effect of mass adoption is not fully realized.

Interviewees also noted lower rates of standards use by small to mediumsized companies and fresh food producers. These organizations typically have fewer resources available for implementation and are often less familiar with the benefits of standards adoption.

To date, the industry's focus has primarily been on implementing standards among manufacturers and retailers, usually driven solely by the retailers. This has left component and raw material suppliers without a clear mandate for adopting standards. With the use of standards well-established across the industry's core, and an increasing need for visibility further upstream into the supply chain, both retailers and manufacturers will increasingly ask for upstream suppliers to voluntarily adopt standards.

Finally, in the absence of detailed guidelines and recommendations on how to put a standard into practice, it is left to the implementing company to create its own interpretations. Sometimes, even when guidelines are provided, market conditions make applying those guidelines costly or difficult. In addition, local versus global implementations of standards creates variation in deployments.



Market Trends and Business Challenges

The consumer goods industry has undergone dramatic change through the last few decades. Challenging economic conditions, evolving technology and a more empowered consumer continue to drive transformation in participants' operating models. The 2020 Future Value Chain report (see box on right) identified 12 trends that are expected to define the industry over the next 10 years. This study validated that these are the major influencing factors shaping the industry.

As part of the research for this report, industry executives ranked several of the trends covered in the *Future Value Chain* report based on their expected impact on their businesses and on standards. The ranking resulted in four specific trends being highlighted (see chart below). Interestingly, the significance of these four trends for the industry was reaffirmed in recent work by the Emerging Trends Pillar of The Consumer Goods Forum where emerging industry trends are explored by committee members.

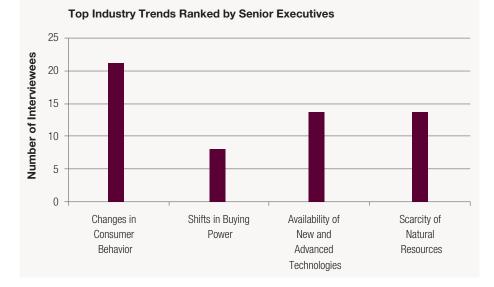
We explore each of these in greater depth in the following sections.

- 1. Changes in consumer behavior
- 2. Shifts in buying power
- 3. Availability of new and advanced technologies
- 4. Scarcity of natural resources



The 2020 Future Value Chain report was published by The Consumer Goods Forum and Capgemini. It details the trends that will have the most impact on the consumer goods and retail industry in the next 10 years. This report also provides a framework to help companies identify strategic objectives and build action plans for 2020.

http://www.futurevaluechain.com/



Changes in Consumer Behavior

Overwhelmingly, executives view consumers' changing approach to shopping as the dominant force shaping the industry over the next decade. The nature of manufacturers' and retailers' interactions with consumers has changed drastically and will continue to evolve.

Internet access, smartphone ownership and social media usage are becoming pervasive globally. These technologies enable people to access information when and where they want it. Consumers now demand readily available product information with realtime updates and the ability to scan barcodes or take a photo of a product to obtain information such as brand, price and stores where it is available. Many seek information beyond the label, including the stories behind the products, product origin and manufacturing working conditions.⁴

As a result, it is critical to have consistent information available via all channels: in store, online and mobile. If the brand owner or the retailer cannot

Consumers are becoming more demanding, and want access to more information

> - VP of Supply Chain of a Manufacturer

provide enough information to satiate the consumer's appetite, consumers will turn to other sources, which could be inaccurate or misleading. Research conducted by GS1 UK, shows that 91% of mobile barcode scans returned incorrect or missing product descriptions.⁵ Research by Clavis Technologies shows that 67% of products were missing essential information such as brand name, ingredients or nutritional information on major eCommerce websites.⁶

Consumers also demand efficiency in post-purchase services such as product recall notifications, real-time information updates and around-theclock customer service, and expect a response in hours, not days.

Executives participating in this research say their companies face several challenges in responding to these developments:

Providing product information across channels

All of the industry executives interviewed expressed concerns regarding effective and accurate communications of product and company information to consumers across channels. Interviewees acknowledged the potential of consumer scanning of product barcodes and Quick Response (QR) codes today, and in the future, image recognition technology. All agreed the challenge lies in ensuring data is accurate, timely and provided in a standardized way via whichever technologies consumers prefer.

Increasing consumer focus on product safety and recall

Several specific categories of information were called out repeatedly: ingredients, allergens, price and origin. In many cases, information needs were closely correlated with the consumer's growing focus on health and wellbeing. Most companies, particularly in the food category, highlighted the need to ensure product safety. Equally important is the need to respond to product failures within hours through effective recall, driven by both government regulations and consumer sentiment.

Ensuring the quality of businessto-business (B2B) and consumerfacing data

Some brand owners are particularly focused on the need for data quality for B2B data shared between trading partners, while others are very aware of the impact of low-quality data on information made available to consumers. The concept of "trusted sources of data" was top of mind for these companies. The challenge is for the industry to agree on an entity or entities in which the trusted sources and their governance will reside.

There's a push to have traceability from field to store to consumer – especially in the fresh produce area. Today, this process is mostly manual

- Supply Chain SVP of a Retailer

⁶ Digital Product Information Benchmarks, Clavis Technologies, 2012

⁴ For more information on this topic, see Beyond the Label: Providing Digital Information Consumers Can Trust, GS1 and Capgemini, 2011

⁵ Mobile-Savvy Shopper Report, GS1 UK and Cranfield School of Management, 2011

Shifts in Buying Power

Developing and emerging markets are anticipated to fare better than recession-weary US and European markets. Brookings Institution has projected significant middle-class consumption growth in developing countries, especially China and India.⁷ Their increased buying power is expected to drive manufacturers and retailers to look for growth in these regions.

Reaching consumers in both developing and mature markets raises the following challenges for many of the respondents:

Product innovation for diverse markets

A wider array of markets means manufacturers and retailers are encountering significant variations in consumers' cultural influences, decision factors and shopping habits. Business challenges can be as basic as the language used on the e-commerce website. Further, the difference in availability of local resources requires manufacturers to be innovative in product design and production to reduce cost and meet local consumer needs.

66 Growth will come from Latin America and Asia

- SVP of the Global Consumer Sector of a Service Provider

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Different distribution channels due to infrastructure capabilities

Another challenge for companies to expand overseas is local infrastructure, from physical roads and bridges, to IT systems and local trade regulations, especially in emerging markets. Additionally, companies are challenged to find new distribution channels that are adapted to local market conditions. For example, one manufacturer spoke about a network of women in rural India who operate directselling businesses in their villages. These women collect orders, communicate these orders to the manufacturer and subsequently retrieve the shipped product from a nearby collection point for fulfillment. A second manufacturer spoke about street vendors and newsstands as distribution mechanisms.

As a result, the top question senior supply chain executives seek to answer is how to construct standardized global supply chain processes that are flexible enough to address local requirements and limitations. Being able to use foundational product identification and data exchange standards would be a huge step forward.

Promotions: necessary for sales growth but problematic for demand forecast

Most of the retailers see promotions as a critical strategy to attract price-sensitive value-hunters. With digital couponing and the ability for consumers to look up prices on mobile devices, retailers feel the pressure to stand out in such a crowded, fast-moving and competitive environment. Manufacturers noted that retailers are often unwilling to share their promotional strategies. As a result, they are challenged to forecast demand accurately and neither manufacturer nor retailer can manage inventory optimally.

Availability of New and Advanced Technologies

Technology has already helped the supply chain to become more efficient. As technology advances, new opportunities arise. RFID (Radio Frequency Identification), GPS (Global Positioning System) and mobile technologies enable goods to be located anywhere while in-transit. New technologies that operate at an even more granular level, such as sensors that capture temperature variations during transport, will provide even richer data for process improvement, product safety monitoring and consumer communications.

Promotion-based sales have moved to 60-70% of all sales, up from about 40%

> - SVP of Supply Chain of a Global Retailer

⁷ The Emerging Middle Class in Developing Countries, OECD Development Center and Brookings Institution, 2011

Construction There's little sophistication being employed around supply chain visibility

- Chief Supply Chain Officer of a Retailer

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Other advances such as applications in the cloud, and the use of mobility in business-to-business processes, were not specifically called out by the executives we interviewed, yet are also expected to impact the industry's supply chain.

Many retailers and manufacturers are shifting to a demand-driven value chain mindset. By getting closer to the demand side of the value chain and understanding the drivers of consumer demand, many companies feel they can improve innovation and gain significant competitive advantage. The demand chain concept is gaining further traction due to the increasingly savvy and well-informed shoppers and the empowering technology they use.

This vision calls for a technologyenabled, integrated value chain where demand is accurately forecasted and updated in real-time, while the suppliers produce the right amount of products and distribute them at the right time and in the right place. Here are some of the top challenges in attaining that scenario:

Obstacles to supply chain visibility

While end-to-end supply chain visibility continues to be a goal for some of the companies in this study, the majority of the industry executives called out specific gaps in the supply chain that create blind spots. In particular, promotions, inventory positions, visibility in "the last 50 yards" and transportation are considered key areas for improvement. There is little knowledge of existing standards that support supply chain visibility.

Increasing visibility in these areas requires increasing data transparency. When talking about sharing data, interviewees stressed the fine line between enabling collaborative processes and harming competitive advantage.

Growing number of data attributes

Consumer goods companies are challenged with keeping up with an expanding volume of data. For example, a typical national grocery retailer must manage more than 2,000 product attributes for each product. When a product manufacturer changes a few ingredients, it is costly and timeconsuming for the retailer to update this information. As a result, retailers find it difficult to respect standards that require barcode numbers to change every time a product is slightly altered.

Manufacturers cite the need to provide different sets of data to different trading partners as an additional challenge. Some data sets are requested by only one company. As a result, the data exchange between each manufacturer/retailer pair is nearly always unique. At the same time, new technologies are capturing even more information, driving up the number of attributes, and further increasing maintenance burdens.

Finally, companies are only starting to develop big data capabilities to get the most out of very large data sets, such as point-of-sale data. Business value can only be generated when analytics provide useful insights that drive positive changes in business processes.

Ensuring data quality

Many executives voiced their frustration with ongoing efforts to revise and cleanse data on a regular basis, especially as data sets expand exponentially in the face of consumers' increasing appetite for information and increasing government regulations. Interviewees also agreed that the growing risk of getting data wrong makes data quality of even greater strategic importance.

There was no agreement on the root cause of data inaccuracy. Some pointed to the lack of accountability of those entering the data; others suggested the limited capability for systems to communicate with one another was to blame. However, all agreed that data quality was a barrier to achieving an integrated value chain.

Exploring emerging technologies

Executives were keen to explore the possibilities of emerging technologies to support supply chain processes. They raised a range of divergent questions:

- RFID is maturing, but when is the right time to deploy in the consumer goods industry?
- How can mobile technologies such as GPS be leveraged?
- What is the value of smart tags, which capture information about what is happening to products while they are in transit (e.g., temperature, humidity, etc.)?
- To what extent can information be stored "in the cloud" so that multiple actors in the supply chain can access it, eliminating the need for point-topoint transmission of information?

Scarcity of Natural Resources

The scarcity of natural resources represents a threat to many companies as the cost of raw materials, energy and transportation rises. Manufacturers are beginning to adapt to these conditions in their product innovation pipelines to save costs and meet regulatory standards.

As consumers awaken to the environmental damage of manufacturing, their interest in more sustainable business practices has gained traction. The industry is divided on how impactful the sustainability trend will be on consumer behavior in the near term. Most believe that consumers' sustainability sentiment does not yet translate at the point of a purchase decision. However, it is still crucial to brand owners that if a consumer is looking to compare sustainability results across companies or products, they are working from accurate and consistent information. Carbon footprint, water usage and energy consumption are most often highlighted as important areas of sustainability to be measured.

These developments present several challenges for manufacturers and retailers:

Promoting product innovation due to scarcity

The scarcity of resources and government regulations make non-sustainable business practices more costly. Some manufacturers see this as an opportunity to innovate by changing products and manufacturing processes to reduce raw material, energy and transportation costs. For example, one detergent manufacturer cut costs by reducing the usage of water, a scarce resource where the manufacturing plant is located, as a main ingredient in its detergents. This innovation was rapidly adopted by other manufacturers and is expected to expand into other product categories in the coming years.

Standardizing sustainability metrics and measurements

While some industry players were big proponents of the need for a common language to assess and communicate sustainability of products, others did not see it as a priority at the moment. However, all agreed that there are currently no standards to support sustainability reporting. This lack of standards to measure, compare and communicate such efforts poses challenges for companies that are typical proponents and forerunners.

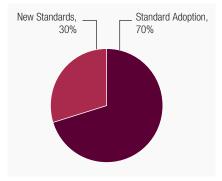
Reverse supply chain process for recycling and disposal

A small number of companies mentioned opportunities in reverse logistics as challenges in the next decade. When products reach the end of their lifecycles, how do we properly recycle or dispose of such items with the least environmental impact?



Exploring the Future of Standards

70% of Senior Executives Cited Standards Adoption as the Main Improvement Opportunity



In light of the current state, market trends and related business challenges, the senior executives in our study explored the future of standards. One strong theme emerged: Existing standards still have huge untapped potential both to increase supply chain efficiency and to support new areas of collaboration beyond the supply chain.

Companies identified four ways this potential can be realized:

- 1. Introduce standards to a wider range of trading partners
- 2. Embed standards in new business processes
- 3. Develop new standards based on industry needs
- 4. Improve the guidelines and services that surround standards

Introduce Standards to a Wider Range of Trading Partners

Most interviewees strongly supported taking a holistic view of the supply chain and expanding the use of standards by trading partners currently on the edges. Upstream of manufacturers, standards already exist for packaging and raw materials suppliers that could be adopted more widely. Downstream of retailers, certain product categories require return or recycling. Other target groups for further standards adoption mentioned are as follows:

Small/Medium Companies

Expanding the use of current standards by small and medium-sized companies is seen as an important step to achieve further supply chain related benefits for the industry. Increased usage of standards by these entities is necessary to eliminate manual processing and to facilitate the collection of the additional product attributes data they possess.

New Retail Channels

Developing markets are dominated by small retailers and other micro distribution channels, while e-commerce is becoming increasingly important in developed markets. Standards are important to move goods efficiently through all of these distribution channels.

Logistics/Transportation

The majority of industry executives agreed that ensuring no truck returns empty is one of the crucial ways to cut costs and carbon footprint. Many use third-party logistics partners to consolidate transportation. Extending standards adoption requirements to transportation and logistics partners is essential to maximize the benefits of collaboration.

Embed Standards in New Business Processes

Today there is a relatively narrow range of business processes in which standards are fully embedded. Industry executives repeatedly pointed out the potential to use standards in a wider range of processes (for example, supply chain planning) and were often unaware that standards already existed in some of these areas. Studies have shown that there is an enormous untapped opportunity for savings through the use of standards even for well-established processes such as order-to-cash.

162

Share Consumer-Facing Product Information

As the industry increases its focus on the consumer-facing, sell-side of its operations, companies are scrambling to provide consumers with an everexpanding set of information that enhances the selling experience. This requires collecting and sharing a broad set of attributes about an item and ensuring the accuracy of this information.

Although many product information standards already exist, companies stressed the dynamic nature of mobile and e-commerce and the need for standards to keep up. Product images are one example. Although one image per product may be sufficient for simple applications, many now require multiple product images, which allow consumers to compare products as if they are holding them in their hands.

The biggest missing area is how we connect with consumers, specifically around trusted data from the manufacturer

> - VP of Supply Chain of a Global Manufacturer

The industry works within a framework, but loosely interprets that framework

- SVP, Retail Supply Chain

Interviewees see the barcode as an important mechanism for giving consumers access to product information. However, they were undecided as to whether wellestablished product barcodes, the emerging data bar solution or new QR-type codes could be most effective. Some suggested merging the barcode with the QR code to create a code that satisfies both supply chain and consumer needs and debated whether storing more information in the code would make it more powerful. Clearly the consumer goods industry needs a roadmap for the evolution of data carriers.

Minimize Product/Food Safety Risks

The need to collect and manage data to support traceability and product safety throughout the value chain was also frequently mentioned by the interviewees. It has become imperative for consumer goods companies to get ahead of this trend. Existing standards should be used to help companies collect, measure and communicate such information.

Furthermore, when product safety efforts fail and a recall is required, retailers and manufacturers need to communicate effectively with each other to execute the recall process. Consumers and government agencies often demand transparency and realtime updates on the recall process, making standards adoption a necessity.

Support Demand Planning

Inventory planning accuracy is a top priority for many consumer goods companies. Manufacturers and retailers alike are looking to obtain realtime visibility of the last 50 yards from point-of-sale data to properly replenish shelves while keeping inventories optimized. Information communication standards should be fully embedded to provide more transparency into retailer promotions. Additionally, companies need to integrate e-commerce, mobile commerce and brick-and-mortar supply chain processes to ensure product and service consistency.

Develop New Standards Based on Industry Needs

Measuring Sustainability

Sustainability has become one of the top corporate core values for many consumer goods companies. The ability to measure environmental impact and communicate sustainability metrics is considered particularly important to those who want to enable consumers to accurately compare the sustainability attributes of similar products. While there are many sustainability efforts underway, a standard set of metrics has yet to be defined and adopted by the industry. Clearly defined key performance indicators and measurements are needed, and standards can ensure consistency in definitions across the industry. Once sustainability is measured, the next question is how to communicate them. The industry needs a green scorecard to share performance data via common metrics.

Improve the Guidelines and Services that Surround Standards

Executives identified three enablers that they consider essential for the full potential of standards to be realized.

Consistency in Implementation

Interviewees stated that differences in how trading partners implement standards, within the universally accepted framework, often undermine each organization's ability to achieve benefits associated with standards adoption. Minimizing these differences would reduce variation, and thus significantly reduce complexity for manufacturers. To eliminate this friction. definitions for those standards that can be loosely interpreted when put into everyday practice should be expanded to spell out exactly how the standard should be implemented. Setting effective incentives, instead of financial fines, should positively reinforce adoption. Adoption metrics and measurements would also increase accountability of all stakeholders, making it easier to identify and address adoption gaps.

Developing use cases that describe leading practices in standards implementation would complement the proposed expansion of standards definitions. Illustrations of how to utilize a standard in different scenarios will help trading partners align on a single interpretation of a standard.

Data Quality

Since data exchange standards serve as the foundation for collaborative processes and increased supply chain integration, it is essential that the data that is actually exchanged is of as high a quality as possible. Internal data cleansing, monitoring and external auditing processes need to be put in place within most of the companies participating in this study. Only when the foundation is solid can the industry diagnose whether the real needs lie in increased adoption or new standards.

Services

Frequently, interviewees expressed the view that standards alone are not sufficient. Sometimes standards are too complex for all parties to implement, and sometimes standards require common infrastructure as an enabling mechanism. Therefore many support the development services that enable standards to be used more widely. A "service-on-demand" model could serve as a translation mechanism between trading partners. Under this type of arrangement, a supplier could provide data or information in the format they currently use, and have it converted to meet any retailer's requirements without significant upfront investment or substantial change to the way they currently do business.

As consumers access more and more information via multiple channels, manufacturers are increasing their focus on the sources and quality of information, especially data on product ingredients and health. Services giving access to "trusted sources" need to be established to validate and monitor all the information related to the product. These sources should guarantee information accuracy, timeliness and accessibility for all consumers. If I were to pick one area for GS1 to make a difference, it would be focusing on one source to generate trusted data

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- VP of Supply Chain of a Global Manufacturer

A Framework for Standards Implementation



The industry feels that enhancing the current system of standards by introducing a framework related to their deployment and implementation would remove ambiguity.

- Guidelines would spell out how exactly how to implement a standard, in addition to providing a definition of the standard
- Services such as providing assistance to companies during implementation, methodologies for ensuring data quality, and tools to simplify translation between companies
- Governance programs, such as adoption metrics, would allow the industry to measure progress toward more consistent implementation



Recommendations

The research makes it clear that the industry's standards programs must expand and evolve to keep up with the marketplace. Specifically, the industry, led by GS1, will need to:

- Develop marketing programs targeted toward companies not making full use of standards
- 2. Introduce simplified standards programs for ease of adoption
- Use existing standards to communicate product information to consumers
- 4. Collect sufficient information about product origin and route to market to minimize risk
- 5. Design a common set of sustainability metrics for the industry
- 6. Develop solutions to ensure data quality
- Expand GS1's role from standards defining body to center of excellence in standards deployment

Develop Marketing Programs

Marketing and education are the two main avenues for increasing awareness about and understanding of the existing standards. Marketing efforts should convincingly explain the business case by focusing on the benefits of standards while leveraging real financial numbers and testimonials from industry case studies. Educational programs should not only explain what the standards are, but also describe how to identify and implement best practices based on real-life case studies.

Target audiences for these awareness and education programs include new GS1 members or first-time users of standards, as well as existing GS1 members who need to expand their usage of standards. Other audiences should include industry partners such as logistics service providers.

Historically, it has predominately been left to retailers to recruit their suppliers to standards programs, but it may be time for the others in the industry to actively promote usage. For example, manufacturers increasingly have incentives to actively adopt standards and to promote their use among other stakeholders. In addition, the industry's service providers will need to become vocal and visible advocates for the use of critical standards across the globe.

Introduce Simplified Standards Programs

Adoption of complicated standards or large-scale standards programs can be a daunting undertaking for smaller companies. The financial costs and resource commitments are often too high, compared to any potential benefits, for such players to proceed with adoption even if they are aware of the pertinent standards. A simplified version of the standards may help to overcome these obstacles. Development of a "basic" version would focus on the most valuable standards first, resulting in easier implementation procedures. For example, at the entry level, the framework might specify use of a GTIN, a barcode and select EDI transactions as the basic elements of the GS1 system of standards that should be initially implemented.

While full and consistent adoption upstream and downstream is the ultimate goal, we recognize that this is a nearly impossible task. As an alternative, a "service-on-demand" offering could provide a translation mechanism for converting information from one organization into formats that can be interpreted by another organization, with no change in procedure on the part of either the originating or receiving organization. This type of solution could enable a manufacturer to send one set of product information directly from their source system to the service provider; the service provider would stage this information and reformat it to comply with the requirements established by a receiving retailer.

892

[The foundational standards] may not be sexy, but they do produce value

> - Senior Supply Chain Executive of a Global Manufacturer

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Leverage Existing Standards to Meet Consumer Communication Expectations

Consumer demand for information was top of mind for most of the interviewees. Supply chain data and non-supply chain data will need to come together to satisfy this need. This will require collaboration with entities outside the traditional supply chain, such as the marketing department. To meet these growing needs effectively companies expect to be able to combine existing standards for product data with emerging trusted-source services.

Given the significant increase in the scope and scale of information to be communicated to consumers going forward and the need to merge information coming from multiple sources, it is time to rethink the communication channels through which consumer-facing information is distributed. Developing a roadmap for next-generation data carriers is an essential part of this. GS1 will need to focus on the practical application of standards

> - Senior Executive of a National Retailer

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[We] need an efficient, fair and transparent agent [to ensure data quality]

- VP of Supply Chain of a Global Manufacturer

Collect Sufficient Information about Product Origin

As government regulations around traceability increase and consumer attention to food allergens and ingredients become a top issue for the industry, adherence to established guidelines for traceability and product recall will mitigate potential risks.

A large number of interviewees called for standards for additional product attributes and traceability, indicating that the industry may not be aware of existing standards already developed by GS1. Putting these lesser-known standards to use will make it possible for partners all along the supply chain to collect and share critical information.

Design a Common Set of Sustainability Metrics

The development of new standards to enable the industry to communicate sustainability metrics to consumers, NGOs and government agencies is important for the industry. The first step is agreeing upon the scope of the standards needed for a "green scorecard."

Develop Solutions to Ensure Data Quality

A majority of the industry executives raised concerns about data quality, and the ongoing efforts to maintain the integrity and accuracy of data collected and shared. Without a set of measurements around data quality, there is no accountability for results. Companies often know that their data quality needs improvement. However, senior executives are uncertain about how bad the data really is compared to others in the industry. A third party needs to create a scorecard to measure, compare and track data quality in order to hold all parties accountable and responsible for adhering to the correct procedures when sharing and entering data into a system.

Expand GS1's Role

The majority of the senior executives in the study pointed out that one of the barriers to adoption was the loose interpretation of standards during implementation. Therefore, it is important that guidelines for using standards on a day-to-day basis become more precise, and are defined at more granular levels. Best practices and case studies would also be helpful in illustrating how to follow the guidelines and the negative impact of inconsistent adoption.

A third-party entity, such as GS1, that can advise stakeholders on standards implementation processes and provide monitoring systems to ensure consistent adoption would be valuable to the industry. This governing body could serve as the owner of the implementation guidelines and offer advisory services to aid companies in aligning to these guidelines during implementation. More than half of the executives interviewed urged GS1 to play a leading role through global governance of implementation processes.

Conclusions

The consumer goods industry has always been an extremely dynamic space. With today's changing consumer, advanced technologies, shifting world economy and depletion of natural resources, the industry is facing more challenges than ever before. The future of standards, according to the senior executives interviewed in this study, will mainly focus on going back to the basics to leverage the existing standards and improve data quality, with the ultimate goal of providing enhanced service to consumers in a more complex world. Additionally, in the arena of new standards development, the emphasis should be on consumer information and sustainability.

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About The Consumer Goods Forum

The Consumer Goods Forum (CGF) is a global, parity-based industry network, driven by its members. It brings together the CEOs and senior management of over 650 retailers, manufacturers, service providers and other stakeholders across 70 countries and reflects the diversity of the industry in geography, size, product category and format. Forum member companies have combined sales of EUR 2.1 trillion.

The Forum's vision is: "Better lives through better business". To fulfil this, its members have given the Forum a mandate to develop common positions on key strategic and operational issues affecting the consumer goods business, with a strong focus on non-competitive process improvements. The Forum's success is driven by the active participation of the key players in the sector, who together develop and lead the implementation of best practices along the value chain.

More information at: www.theconsumergoodsforum.com



About GS1

GS1 is a not-for-profit, neutral organisation that is driven and governed by its members. It manages and develops the most widely used system of supply chain standards in the world used by over 1 million organisations in multiple sectors and in close to 150 countries.

GS1 is most well-known for the bar codes that companies put on their products and that are scanned by retailers at point-of-sale. However, GS1 standards are much more than the barcodes. They provide a framework for companies to identify, capture and share information which drives supply chain visibility. This allows companies to improve efficiency, safety and sustainability and to better collaborate with suppliers, customers and endconsumers.

More information at: www.gs1.org

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