

# CSCMP hottopics

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## Data Quality

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With consumers increasingly relying on mobile devices to assist them with product information searches, price comparisons, and convenient fulfillment options, data has become the lifeblood of the retail industry today. Expectations for product data quality are specifically high, and failure to focus on data can mean falling completely out of touch with consumer needs.

Consider these facts:

- 84% of shoppers use their devices to help them shop in store, according to a Google study.
- Research from eMarketer revealed that 86% of consumers are unlikely to buy a product from a brand after experiencing inaccurate product data.
- 87% of customers think brands need to put more effort into providing a more consistent experience, according to Kampyle.

Today, consumers consider access to product information very important—they are evaluating products based on their attributes, not just quality and price. As a result, trading partners must work together to clean up supply chain data to ensure accurate nutritional and allergen information, identify how a product was sourced, disclose its environmental impact and much more to inform consumer purchase decisions.

### THE NEED FOR AGILE SUPPLY CHAINS

Consumers are driving unprecedented disruption that is currently affecting the way companies operate their supply chains. From mergers and acquisitions like Amazon/Whole Foods and Kroger/Ocado that exemplify digital transformation, to new fulfillment options like click-and-collect, there is undoubtedly pressure for companies to create agile supply chains to respond to new consumer demands.

Some major supermarkets are experimenting with order-to-shelf systems, for example, where distributors and suppliers deliver small batches of product more frequently and retailers keep little to no inventory on hand. With cost savings benefits and the ability to cut down on food waste, order-to-shelf requires close coordination between trading partners to calibrate supply and demand in order to avoid empty shelves.

Companies testing these and other new ways to make their supply chains more efficient are benefiting from proactive industry collaboration to provide and exchange quality data—as any innovation often exposes poor data quality. Supply chain and inventory processes based on standards (as opposed to proprietary systems that are not interoperable between trading partners) elevate organizations to the required level of operational efficiency to compete in today's marketplace.

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For many in supply chain, the pressure to improve data quality is nothing new. For years, data managers have been well aware of “band-aid” fixes and work-arounds used within existing systems. As the industry evolves, there is an overwhelming consensus that the time to improve data quality is now.

Breaking the cycle of inaccurate and incomplete supply chain data should be viewed as investment that will produce many future returns. Data quality programs are continual, and organizations should seek to achieve fluid business processes that can keep up with the pace of new data constantly being requested, created, and shared. The integrity of product data needs to be maintained through all steps of the supply chain, so trading partner collaboration is important to help an individual company, and possibly an entire industry evolve.

For example, one small measurement error can mean a shipment will not fit into the warehouse space assigned, causing a company to incur thousands of dollars in unnecessary costs to rework. Additionally, a product ingredient missing from a product listing can cause an adverse reaction in a particularly vocal consumer using social media, leading to long term damage to the brand’s reputation.

Looking further into the future, as the demand for Internet of Things (IoT) products such as smart refrigerators increases, data quality must be prioritized so that the accurate information can accurately fuel different systems. Bad data can also affect trading partners’ ability to deliver the turnkey nature of automatic product replenishment that these innovations promise. What the consumer orders must be what they receive on their doorsteps, or retailers and brands will lose out to competitors who have perfected this process.

These are the risks of poor data quality that must be considered when envisioning a company’s future relevance among digital savvy consumers. The time has come to ask: How much is your inaccurate data becoming a liability?

### THREE PILLARS FOR DATA QUALITY SUCCESS

Manufacturers, distributors, retailers, foodservice operators, healthcare providers and other major companies are prioritizing data quality improvement amid the growing need to seamlessly share product information with their trading partners and consumers. They are looking inward at current business processes and using a framework for improvement that was established by the [GSI US National Data Quality Program](#)<sup>1</sup>.

The program was created by supply chain professionals with responsibility for master data management, quality assurance, and other data-related roles who recognized the need for one common approach to improving data quality. GSI US worked with these industry professionals to establish three pillars that each promote a level of trust about product information shared.

- **Data governance** – By focusing on data governance to support the creation and maintenance of product data based on global standards, organizations can take one of the most important steps to setting up a culture that values data as a strategic asset.

Data governance programs serve an important function within an enterprise: setting the parameters for data creation, management and usage, creating processes for resolving data issues, and enabling business users to make decisions based on high-quality data. A solid data governance program formalizes accountability for data management across the organization and ensures that the appropriate people are involved in the process.



## About CSCMP Hot Topics

Issues of *CSCMP Hot Topics* may include early results from ongoing research being conducted for CSCMP or other organizations; new supply chain practices, thought-provoking ideas, or emerging trends; discussions of changes in the broader business and regulatory environment that may impact the supply chain and logistics field.

- **Education and training protocol** – Industries including grocery, retail, healthcare, and foodservice leverage global GSI Standards in their supply chains to provide a common foundation for uniquely identifying products, capturing information about them, and sharing data with other companies, and ultimately with consumers. Adoption of these standards and best practices can help eliminate manual processes that are susceptible to error, enable better data interoperability with other organizations, and increase speed-to-market by making data more actionable. Maintaining internal knowledge about standards and proper application of them for data quality is essential for success.

- **Attribute audit** – Attributes are the characteristics used to describe products, and they can play an essential role in how organizations stay vigilant about data quality. Organizations can validate data governance processes and institutional knowledge through routine physical audits that compare an actual product attribute to the most recent information shared about that product.

Additionally, as an extension of the GSI US National Data Quality Program, members of the grocery and foodservice industries recently formed a joint workgroup specifically dedicated to looking at the full scope of data quality areas of improvement within these two channels.

Participating companies have benefited tremendously by focusing on improving supply chain data such as product weights and dimensions, which allow for significant operational and logistical savings. Now, in response to transparency demands, the program recognizes that consumer-facing attributes such as nutritionals and allergens must be a part of the evaluation process too to ensure more accurate data is presented to the consumer. Their work will continue to help these industries and others ensure accurate data is flowing through the supply chain in order to save time, labor and other resources.

## FROM REACTIVE TO PROACTIVE

Companies who have excelled at implementing data quality programs have uncovered some best practices for keeping a data quality program sustainable. Target recently described the key metrics that they used to bring their data quality program from a reactive state to a proactive and preventative state, where they are no longer “cleaning up” data but working to get ahead of any potential issues before they happen.

To keep measurements uncomplicated, Target settled on a simple, yet powerful top metric for data quality: issues per item. This helps the retailer see the scope and type of product data quality issues that need attention.

“When considering everything that we could track and measure, this one metric—issues per item—would help us truly understand where we are and how we can make progress,” said Andy Nash, lead product manager, Target in a recent [GSI US white paper](#)<sup>2</sup>.

“We’re shifting our focus to being as close to zero on issues per item for new products and on being proactive,” Nash continues. “A product that goes on our website tomorrow should have no errors detected. That’s our goal. Instead of changing the numbers based on categories, we’ve changed it based on time and being proactive versus reactive.”



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In addition to tracking key metrics like this, Target and its suppliers note that collaboration and transparency are also important components of a long-term successful data quality program.

Collaborating end-to-end with packaging engineers, supply chain data management, and customers to enhance existing processes ensures more manageability. Being transparent about mistakes also helps each supply chain participant learn how to prevent it from happening again. Sharing how an error impacts customers or any other part of the business has been a positive influence on eliminating future inefficiencies.

#### TAKE ACTION NOW TO IMPROVE YOUR DATA QUALITY

By unlocking the value of complete, accurate product data, all supply chain partners can work together to satisfy consumers and improve efficiencies across industry. GS1 US has a variety of resources available to help companies get started. Visit [www.gs1us.org/dataquality](http://www.gs1us.org/dataquality)<sup>3</sup> to learn more.

#### ABOUT GS1

GS1 US®, a member of GS1® global, is a not-for-profit information standards organization that facilitates industry collaboration to help improve supply chain visibility and efficiency through the use of GS1 Standards, the most widely-used supply chain standards system in the world. Nearly 300,000 businesses in 25 industries rely on GS1 US for trading partner collaboration that optimizes their supply chains, drives cost performance and revenue growth while also enabling regulatory compliance. They achieve these benefits through solutions based on GS1 global unique numbering and identification systems, barcodes, Electronic Product Code-based RFID, data synchronization, and electronic information exchange. GS1 US also manages the United Nations Standard Products and Services Code® (UNSPSC®). [www.gs1us.org](http://www.gs1us.org)<sup>4</sup>

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#### FOOTNOTES

<sup>1</sup> [https://www.gs1us.org/what-we-do/services/gs1-us-data-quality-b2?utm\\_expid=117074145-28.TmYABHlwSReHsV9p42JaKw.l?utm\\_source=PRArticle&utm\\_medium=PR&utm\\_term=PR&utm\\_content=CTA\\_Link&utm\\_campaign=HT4](https://www.gs1us.org/what-we-do/services/gs1-us-data-quality-b2?utm_expid=117074145-28.TmYABHlwSReHsV9p42JaKw.l?utm_source=PRArticle&utm_medium=PR&utm_term=PR&utm_content=CTA_Link&utm_campaign=HT4)

<sup>2</sup> [https://www.gs1us.org/what-we-do/services/gs1-us-national-data-quality-program/bythenumbers?utm\\_source=PRArticle&utm\\_medium=PR&utm\\_term=PR&utm\\_content=CTA\\_Link&utm\\_campaign=HT4](https://www.gs1us.org/what-we-do/services/gs1-us-national-data-quality-program/bythenumbers?utm_source=PRArticle&utm_medium=PR&utm_term=PR&utm_content=CTA_Link&utm_campaign=HT4)

<sup>3</sup> [https://www.gs1us.org/what-we-do/services/gs1-us-data-quality-b2?utm\\_expid=117074145-28.TmYABHlwSReHsV9p42JaKw.l](https://www.gs1us.org/what-we-do/services/gs1-us-data-quality-b2?utm_expid=117074145-28.TmYABHlwSReHsV9p42JaKw.l)

<sup>4</sup> [www.gs1us.org](http://www.gs1us.org)