

White Paper

# Avoiding the Pitfalls of Poor-Quality Product Data in a Digital World

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Discover the Power  
of SKU Build to Drive  
Commerce Growth



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# Introduction

The modern commerce landscape features three types of businesses: those that have digitally transformed, those in the process of modernizing, and those resisting change and risking obsolescence. While technology often takes center stage in these discussions, it is data that truly drives successful transformation. This principle applies to every business in today's market—whether physical, digital, or a hybrid model.

A number of challenges stem from poor data management, particularly in acquiring and managing data from suppliers and manufacturers. The repercussions of these challenges are far-reaching, resulting in customer frustration as they struggle to find the right products and make shopping comparisons. Additionally, inadequate product information hampers organic search performance, giving competitors a distinct advantage.

The root cause of these issues often remains hidden. Operational inefficiencies and costs arise from lengthy product onboarding processes and efforts to rectify incomplete or inconsistent information from manufacturers and suppliers. While PIM (Product Information Management) and MDM (Master Data Management) systems are highly effective at managing and organizing data, these systems depend on clean, enriched, error-free data with standardized models, attributes, and the necessary metadata in order to function optimally.

It's time for businesses to look beyond technology alone to solve their product data problems. Pivotree SKU Build is a service that enables businesses to efficiently and cost-effectively obtain high-quality, channel-ready SKUs at scale to achieve speed to market and improve customer satisfaction, without adding more technology operating costs.

# Product Data Complexity: Where Businesses Can Fail

Businesses harness vast amounts of data to drive decision-making, optimize operations, and deliver tailored customer experiences. Amazon is a prime example of a company that utilizes data effectively to facilitate online sales through seamless product searches, precise and comprehensive product descriptions, and streamlined delivery systems. Their success has raised customer expectations, compelling other businesses to match or exceed these service levels to remain competitive.

For the majority of businesses, however, managing hundreds of thousands of SKUs from multiple sources presents a major challenge. Ensuring high-quality product data across the supply chain is daunting, as data passes through multiple systems, making accuracy, consistency, and completeness difficult to maintain. Manual processes worsen the issue, leading to human error and information gaps that negatively affect product search results.

The diverse data formats and varying levels of detail from hundreds of suppliers cause significant delays in data processing, which in turn slows down a company's ability to get their products to market. Additionally, each market and channel has its own set of standards and requirements, making it challenging for companies to adapt product information accordingly. This hinders expanded market and channel reach.

## Channel-Ready SKUs

Pivotree SKU Build is a service that enables businesses to efficiently obtain high-quality, channel-ready SKUs at scale. Expert analysts and AI technology power the service, seamlessly integrating it with commerce systems and data management platforms to eliminate complexities in product onboarding. SKU Build optimizes product information for various commerce channels, driving conversion, reducing product returns, and offering significant cost savings compared to internal or outsourced alternatives.

# The Impact of Low-Quality Product Data



**Delayed time-to-market**



**Operational inefficiency**



**Error risks**



**Resource drain**



**Scalability issues**



**Customer distrust**

# Data Modeling and Enrichment is the Answer

## Data Modeling

Data Modeling is the foundational stage of SKU Build, where a structured taxonomy and schema is established to categorize and define product attributes consistently. This process involves:

### TAXONOMY DEVELOPMENT

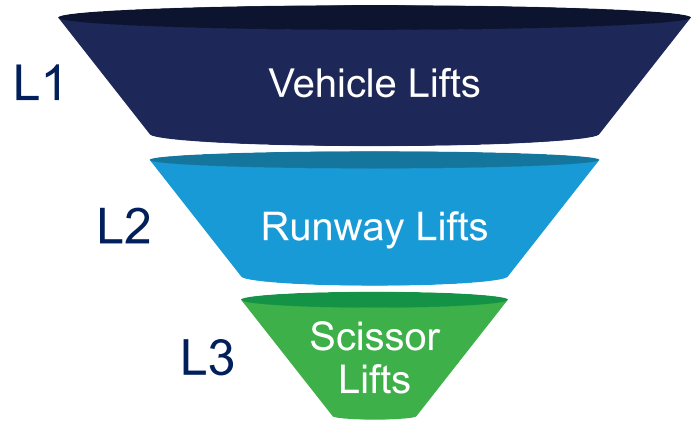
Pivotree taxonomists collaborate with domain experts to design a hierarchical taxonomy that reflects the product categories and attributes relevant to the business. These taxonomies are built on industry best-practices, driving accurate, consistent, and complete attribution.

### SCHEMA DEFINITION

Once the taxonomy is established, a schema is defined to specify the attributes within each category. This ensures uniformity in how SKUs are represented across different manufacturers and categories.

### AI INTEGRATION

AI technologies are employed to enhance the data modeling process by automating tasks such as optimizing taxonomy structure and schema definitions. Machine learning algorithms can analyze large datasets to identify patterns and optimize the taxonomy and schema for improved consistency and governance. And with Pivotree's repository of millions of SKUs, AI technologies can detect similarities and differences to automate the process of taxonomy and schema building. Pivotree's team of taxonomy and schema experts go through these automated results in detail to ensure accuracy and conformity with best practices.



- Lifting capacity
- Maximum rise
- Runway width
- Brand
- Short description



## EXAMPLE: ORIGINAL EQUIPMENT MANUFACTURER

For an original equipment manufacturer (OEM) of engine components, the taxonomy could include categories like "Spark Plugs," "Pistons," and "Fuel Hoses," with related schema definitions specifying attributes such as "Gap Size" and "Thread Size" for Spark Plugs, "Stroke Length" and "Coating Material" for "Pistons", and "Inner Diameter" and "Pressure Rating" for "Fuel Hoses". With a consistent taxonomy and schema, product information becomes structured and organized, making it easier for customers to search for and compare the parts they need using the key attributes for each type of product.

## SKU Enrichment

SKU Enrichment is an end-to-end content service, where raw product information is acquired, curated, enhanced, prepared, and distributed to PIMs, eCommerce systems, or sales channels. It can be used to gap-fill existing SKUs or for new product introductions (NPI). This process provides:

### CONTENT ACQUISITION

Sourcing product information and attributes such as high-quality images, detailed descriptions, and technical specifications, is acquired from various manufacturer sources, such as their website or direct relationships and data feeds.

### DATA CURATION

Raw product data is curated and organized according to the established taxonomy and schema. This may involve categorizing products, standardizing attributes, enriching content with relevant metadata, and adding high value attributes beyond the manufacturer's specifications.

### DATA CLEANSING

Gaps, inconsistencies, and errors in product descriptions and attributes are identified and rectified. This may include removing duplicate entries, correcting misspellings, and standardizing formatting.

## ATTRIBUTE ALIGNMENT

Product attributes are aligned across categories and manufacturers according to the established taxonomy and schema. This ensures that similar attributes are represented consistently across all products, facilitating easier comparison and searchability.

### SEARCH ENGINE OPTIMIZATION

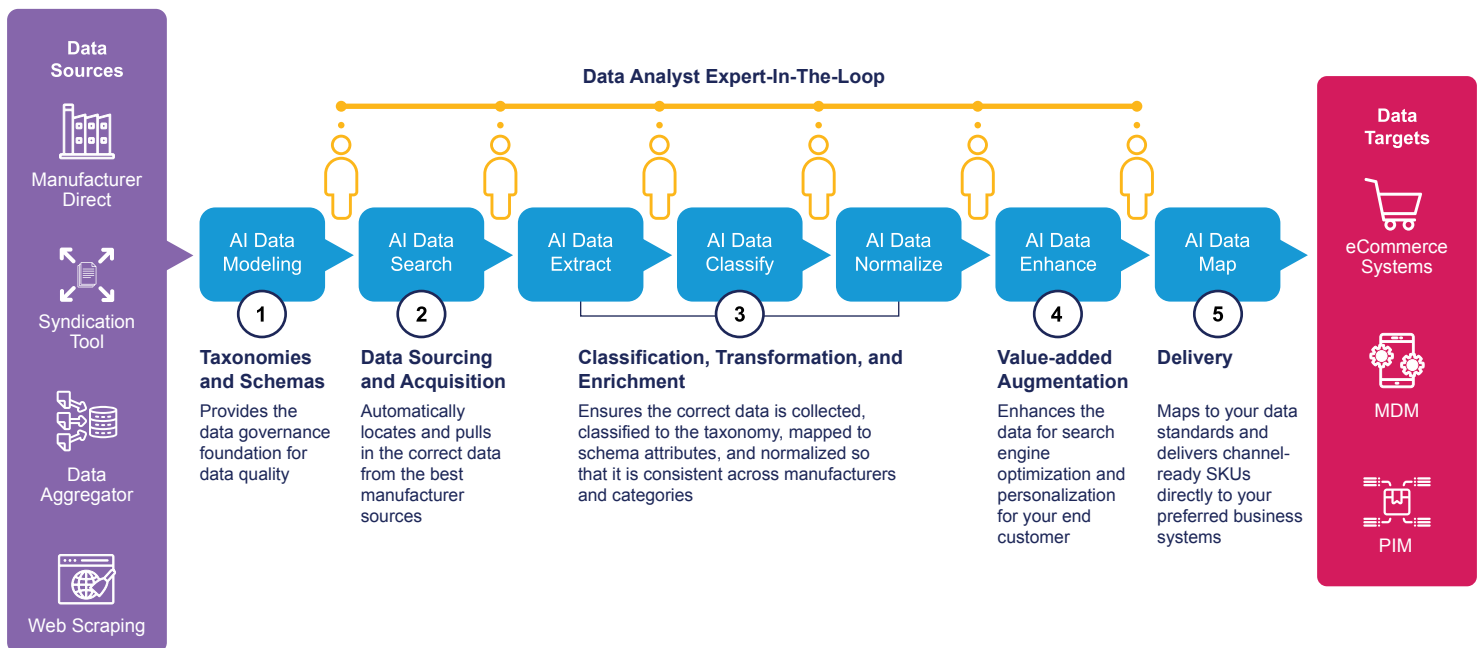
Product data is augmented to improve search engine optimization (SEO), enhancing the visibility of products in online searches. This may involve adding relevant keywords, optimizing meta tags, and structuring content to improve ranking in search results.

### CHANNEL READINESS

Enriched SKUs are formatted and optimized for distribution across different sales channels, including eCommerce websites, and marketplaces. This ensures that products are presented consistently and effectively to customers regardless of the platform they use.

SKU Build eliminates the need for a manual or semi-automated onboarding process by directly providing the end result — complete SKU data. This data-as-a-service approach streamlines product onboarding and enhances operational efficiency for businesses managing large product catalogs.

## HOW SKU BUILD WORKS



## Product Data Transformation

There are three key elements to product data transformation that underlie the SKU Build concept:



### A RICH DATA REPOSITORY

A vast repository comprising millions of pre-built, channel-ready SKUs is fundamental to the SKU Build service. The repository reduces the time that is required to build and deliver high quality product data.



### ACCELERATED BY AUTOMATION

SKU Build leverages a set of components and tools that use data automation classification, normalization, and sourcing. This gives businesses independence from third-party sourcing agencies, saving them time and helping improve consistency and accuracy across large volumes.



### FINE-TUNED BY HUMANS

The human-in-the-loop approach is central to SKU Build's efficacy. Expert taxonomists, data analysts, and category specialists manage the SKU Build process from acquisition to enrichment and delivery. They also design taxonomies, schemas, and workflows, leveraging best practices and industry standards to optimize data quality and integrity. This proactive approach ensures SKU Build continually delivers value and innovation.

## Speed and Scale: A Competitive Advantage

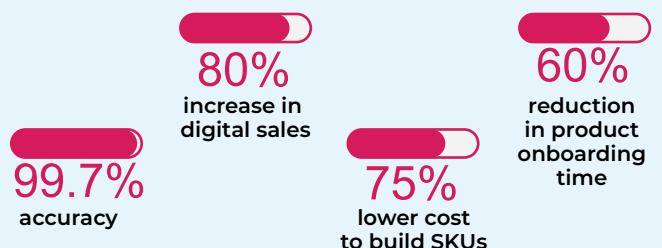
Pivotree's SKU repository, coupled with innovative AI-driven automation, allows us to deliver SKUs faster, with more scale, and with higher quality than in-house product teams can achieve. This enables businesses to respond competitively to market demands and trends swiftly. This helps accelerate the acquisition and enrichment process which enables businesses to respond competitively to market demands and trends swiftly.

It's not just about getting it done faster; it's also about doing it better. One of the core capabilities of SKU Build is to deliver product information that's complete and consistent. By standardizing attributes, rectifying errors, and ensuring uniformity across categories and manufacturers, SKU Build enhances customer experiences at the foundational level. A high level of consistency and completeness of information makes it easier for customers to make comparisons and informed buying decisions. This, in turn, leads to higher conversion rates and increased revenue for business.

SKU Build also helps businesses avoid stagnation. Designed for scalability, SKU Build evolves alongside businesses, enabling them to accommodate larger product catalogs without compromising on quality. This enables businesses to capitalize on growth and meet ever-growing customer demands with ease.

### EXAMPLE: INDUSTRIAL PARTS DISTRIBUTOR

Pivotree enriches 400K SKUs a year for this mega global distributor whose goals are to significantly decrease time-to-market, reduce costs, and increase revenues. The results speak for themselves:



## The ROI on Enriched Product Data

High quality, consistent, complete, and accurate data, as well as value-added data for increased personalization, leads to revenue increases as well as cost reductions, providing a greater ROI. The incremental ROI comes from several factors but is typically related to:

**Improved time to market**, generating sales earlier and, for net new products, possibly before competitors have them available

**Conversion boost** based on having all data points that drive the buying decision readily available, improving a customer's ability to find, compare, and trust the information on your website

**Effective personalization** can further boost conversion rates and overall sales revenue by 5-15% according to McKinsey and drive overall customer satisfaction and loyalty.

**Product line expansion**, bringing offline or un-enriched SKUs up to the same data standards as your online enriched SKUs can significantly boost the findability and sales numbers for those SKUS.

Pivotree has an ROI calculator that can help you understand the potential top-line value that SKU Build can bring to your organization.

## High-Quality Data Drives Digital Success

In today's commerce landscape, relying solely on technology isn't enough. Businesses must also acknowledge that the real driver of success is data. While there's no doubt that technology like PIM is crucial for digital transformation, having high-quality, channel-ready product data is the key to unlocking its full potential.

Creating and managing this data, especially when it involves building SKUs, shouldn't burden businesses or inflate their total cost of ownership (TCO) with more tech adoption. That's where Pivotree SKU Build comes in. It tackles this challenge head-on by providing businesses with the data they need to move quickly and scale efficiently. With Pivotree SKU Build, businesses can expand their catalogs and enter new markets and channels at lightning speed. The solution delivers high-quality data that enhances searchability, enables personalization, streamlines the buying journey, and significantly accelerates time-to-market. These are critical factors that help businesses boost revenue and gain a competitive edge in a constantly evolving market.

## About Pivotree

Pivotree, a leader in frictionless commerce, strategizes, designs, builds, and manages digital Commerce, Data Management, and Supply Chain solutions for over 200 major retailers and branded manufacturers globally. With a portfolio of digital products as well as managed and professional services, Pivotree provides businesses of all sizes with true end-to-end solutions. Headquartered in Toronto, Canada, with offices and customers in the Americas, EMEA, and APAC, Pivotree is widely recognized as a high-growth company and industry leader. For more information, visit [www.pivotree.com](http://www.pivotree.com) or follow us on LinkedIn.



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