Data Management in the Footwear Industry

By centralizing and integrating product information management with enterprise resource planning and shop floor execution systems, footwear companies across the value chain can more effectively deliver a consistent customer experience across channels and accelerate time to market.

Executive Summary

Today’s retail world is fast-paced, technology-driven and complex. Ever-changing consumer needs and the volume, variety and velocity of structured, unstructured and semi-structured data makes retail exceedingly difficult to manage. The footwear sub-category poses its own specific challenges. First, management of large data volumes has always been crucial in this space, particularly as e-commerce has gone mainstream. Further, selling through multiple channels is no longer a differentiator. Targeted selling through online shops, print catalogs and point-of-sale has made omnichannel a strategic imperative for delivering a consistently delightful customer experience. Success requires effective management of vast volumes of product and customer data.

This white paper addresses the challenges that footwear companies face in today’s omnichannel retail world, and how these companies can attain sustainable business success by integrating product information management solutions. We base our findings and recommendations on the experiences of specialists in the footwear industry, from both a retailer and manufacturer perspective.

Complexity of Product Assortments

Striking a balance between utility and assortment is an exceedingly complex exercise. For example, depending on individual needs, a given buyer might care more about product functionality, fashion trends or the availability of shoe in her size. Getting the balance right is always difficult for shoe companies, which means they struggle to produce the right variation of shoe in the right place, at the right time.

Consider that footwear retailers and manufacturers typically carry a product range of approximately 40,000 lots. This number may seem reasonable considering that footwear is a foundational product. But when dimensions such as size, color, country of origin and seasonality are added to the mix, the number of SKUs increases exponentially, making data management more complicated and demanding.
Just considering the dimension of size, the attributes multiply quickly, as seen in Figure 1, which shows the industry-standard model developed by the Association of Retail Technology Standards.

Considering that most shoes come in 12 different sizes and at least three basic colors, and account for four different seasons in many parts of the world, the following calculation applies:

\[
40,000 \text{ products (lots)} \\
\times 12 \text{ different sizes} \\
\times 3 \text{ different colors} \\
\times 4 \text{ different seasons} \\
= 5,760,000 \text{ SKUs per year}
\]

Given this enormous number of SKUs, footwear companies often struggle to stay current with the enormous amount of product data. For multi-brand retailers such as Brown Shoe Co. (now Caleres) or Footlocker, which manage multiple brands in their outlets, the product range increases exponentially. Companies like these need a more efficient and effective approach to data management.

E-Commerce Trends

According to ShopperTrak, foot traffic at the nation’s retailers fell 14.6% during the 2014 holiday season compared with the year prior. With consumers increasingly turning to online buying, the decline in physical store shopping signifies a tectonic shift in how consumers shop and buy.

In this climate, many businesses are shuttering underperforming stores (see Figure 2), while

<table>
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<tr>
<th>Geographic Region</th>
<th>Size Group</th>
<th>Age Group</th>
<th>Age Group Range</th>
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<td>U.S.</td>
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<td>Adults</td>
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<td></td>
<td>Large</td>
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Source: Association of Retail Technology Standards Model

Figure 1

U.S. Retail Store Closing Statistics

Source: Informatica and Australian researcher IBISWorld

Figure 2
e-commerce sales rise (see Figure 3). Some forecasters predict a 14% jump in sales for the 2015 holiday shopping season.\(^2\)

With the rise in online sales, footwear retailers are increasingly adding images and videos to boost shoe sales. As backed by numerous research studies, a product sells better online if it is properly illustrated, and will perform even better if short videos are included. The creative use of product videos with live models conveys the look and design of the product, which helps consumers avoid the time-consuming and frustrating process of ordering and returning multiple shoe styles.

Some online footwear retailers also offer the possibility to virtually try on shoes. Smart algorithms are used to detect foot shape, and the customer clicks on the shoe to assess fit. While this capability is very appealing, its data-rich approach places a considerable strain on the retailer’s conventional enterprise information architecture. The growing volume and complexity of the data highlights the need for a more efficient data management process. Therefore, the need for a potential central hub has emerged to centralize the collection, analysis and distribution of the structured or non-structured data associated with the product.

Seasonality is another important factor in the footwear industry that adds to data volumes. For accurate evaluations, different seasons’ collections must be distinguishable from each other, and continual price adjustments must be made. Sale analyses, therefore, must be differentiated by both original price and sale price to maintain accuracy.

**Data Collation and Aggregation**

Many footwear retailers with an online presence under-estimate the significance of strong data management. Their marketing strategies and investments often lack a well-thought-out return on investment (ROI). The ability to market on social media sites such as Facebook contributes further to the problem because it adds a steady stream of unstructured data to the mix of structured and semi-structured interactional and transactional data. Many retailers are still working to create a well-formulated multi-channel strategy with associated measurement data, analysis tools and measures of success.

External agencies, photo studios, the legal department and marketing all participate in the process of data management, which leads to manual processes (see Quick Take, next page).
Product Data Management in Footwear

Clearly, a more enlightened approach to product information management (PIM) must be embraced for footwear companies to overcome the aforementioned challenges. As such, we recommend the following:

- **Use PIM as a central hub and apply it seamlessly across the enterprise.** In order to answer questions on product assortment or seasonal sales with the push of a button, the PIM system needs to be integrated and coordinated with the enterprise resource planning system. This is especially true because the sale of footwear is complex, erratic and fast-paced, making the control of data a critical factor.

  The PIM system must function as the single source of truth that informs ERP and shop floor operations. Storing all data in a single system enables access to the PIM system from any authorized point, both inside and outside the enterprise.

- **Focus on time-to-market.** With four or more seasonal sales phases, time-to-market is extremely important in the footwear industry; as a result, planning new product collections and data entries cannot take several weeks. As mentioned above, processes are often run in parallel due to the external agencies and other entities involved. Manual data entry is, therefore, inadequate for successful online selling.

  Since images are crucial for footwear sales, companies should establish high data quality levels. The product characterization must include at least one image, a short description, color specifications and available sizes. Over time, organizations can add data enhancement processes that provide further descriptions, additional images, videos and cross-references. The process can be continuously improved over time, as the focus must be on getting the product online and ready for sale as quickly as possible.

Quick Take

Manual Data Management Challenges

Data management at many footwear retailers is characterized by manual processes. To overcome the inefficiencies and errors of manual data management, organizations must first take note of the following:

- Images are another source of manual effort and resulting problems. Resolving these problems is critical because these image sources are portrayed on the e-commerce platform.

- Manual changes and updates often lead to errors that can immobilize a company for days until the error is found and resolved. It can also lead to delays in product launches, which in turn has a negative effect on sales.

- Order forms and/or order sheets, which are used as the foundation for manually filing items, are often left incomplete by purchasing and ordering departments. This leads to errors during sales analysis or ordering reports.

- When manually executed, the complex process of data storage and evaluation leads to time delays and aging of data. The “learning effect” disappears – or the final evaluations are not even read – because they are already outdated upon completion.
Incorporate customer feedback. Footwear retailers should take advantage of direct customer contact in the form of evaluations and feedback. Today, collecting and analyzing customer feedback is one of the most important ways to collect product planning data because it makes it possible to identify trends earlier than in the past.

PIM systems provide the ability to associate product information with customer sentiment.

Much of the feedback is received via unstructured e-mail, which is very important but difficult to manage. Comparatively, online forms are more structured and more easily managed, with reviews incorporating a five-star ranking scale. The option to leave a comment should also be included in the review system, and negative feedback should be viewed as an opportunity to respond to an unsatisfied customer, which can create a sense of trust in a community. Negative feedback can also identify mistakes in the store or online media assets that the retailer is unaware of; discovery of these issues should be quickly followed by resolution. The sooner the organization analyzes and responds to this feedback, the better positioned it is to avert reputational damage and convert product dissenters into ambassadors.

Looking Forward

Many footwear companies continue to rely on in-house-developed marketing databases and non-integrated sales software programs that are not controlled by any criteria. If data control is not well constructed, a data crash and/or faulty evaluation is inevitable.

Footwear companies must prepare for this enormous change, not only in systems and processes but also in mindset. When an organization undergoes such a transition, change management must be carefully planned, and decision-makers must understand the drivers and benefits of the initiative.

From an IT perspective, footwear retailers must ensure their internal legacy systems continue to function while the new data management system is being implemented, while slowly migrating from these older inflexible systems to newer ones that operate as part of a centralized data management hub.

The footwear business is highly dynamic, and shopper preferences undergo continuous change. Therefore, companies without well-managed product data are at a competitive disadvantage. Faster time to market is not only essential; it’s the key factor for long-term business success.

Successful footwear retailers use every possible sales channel because it’s the best way to generate customer loyalty built around rich, engaging and relevant shopping experiences. A central PIM makes this approach possible because of the direct integration of customer feedback.

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Footnotes


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