PLM Embedded in ERP: A Fluid Path from Concept to Consumer

When fashion businesses use the same solution for product lifecycle management (PLM) and enterprise resource planning (ERP), they bring many critical processes into a common technology platform. The benefits can be significant.

An Apparel Magazine White Paper Sponsored by K3 Business Technologies

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These are both exciting and challenging times for the fashion industry. Speed to market continues to be a prime competitive advantage, and the usual pressures to deliver a compelling price and solid quality remain intense. Amid it all, the complexities of doing business are taking on new dimensions.

While speed is essential to bring relevant collections, cost and quality remain significant in deciding upon selecting sources and materials. Added to these complexities are trade boundaries and consumer awareness related to social conduct, environmental behavior, and ecological footprint. Fashion brands in the lower, mid and upper markets all experience the same challenges.

HOW PLM CAN HELP

First, it's important to establish why PLM continues to be a highly sought-after solution for many fashion businesses. PLM helps fashion businesses organize their product information and bring structure to product development processes.

PLM also brings sample management within a system. For many companies, sampling still is managed outside of any software program. Businesses rely on emails, phone calls, and spreadsheets to track hundreds if not thousands of samples and prototypes. When sampling can be managed within PLM, stakeholders across the supply chain have much greater visibility and control of workflow and quality, including fit testing and review. They also can experience substantial reductions in wasted materials and time spent on numerous sample rounds.

A modern PLM system even supports companies to design virtually, while capturing and sharing all the necessary details with all involved parties.

PLM makes it easier to repurpose styles, specifications and pattern blocks from one season to the next. For example, if a dress from the spring season performed well, it can be refreshed for the summer season without the need to start from scratch. Designers, product developers, and manufacturing vendors can work within the PLM solution to change out colors, trim or details, but they do not need to re-enter every bit of data about the style. This capability leads to dramatically increased efficiency during line development. Participants in the Gartner/Apparel survey said "reduced product development time" was second only to standardization in terms of business benefits they have achieved through PLM.

BENEFITS OF AN EMBEDDED PLM-ERP SOLUTION

For all of its many advantages, PLM software alone is not delivering the full range of desired improvements. This is especially true when PLM stands alone, not really connected to the rest of the corporate technology infrastructure or supply chain. This may be one reason why less than one-fourth of apparel professionals told Gartner/Apparel they have achieved a faster time to market through PLM. It's an objective that still eludes many.

"A great deal of product information continues to exist within functional silos, and is essentially invisible even to teams collaborating internally at a company," the Gartner authors said in the Apparel report.

PLM functionality can be implemented through different software approaches. One is through the use of "point," or stand-alone, solutions. Another is through PLM capabilities or modules embedded within a broader enterprise solution, such as an ERP platform.

Point solutions may offer some degree of more robust functionality, but an interface must be built to carry any data from the PLM system over into a company's ERP solution eventually. Building such an interface can be expensive and errorprone. In the end, it can be a big investment to fill information gaps on the ERP side. It is a complex



exercise to communicate all the data available in the PLM point solution to the ERP solution and then, when needed, send some data from ERP back to PLM. The magnitude of this work and additional investment is quite often overlooked and underestimated. PLM embedded within ERP offers many advantages. Following is a brief look at just a few functional areas and how a holistic PLM-ERP approach helps their processes flow more smoothly.

PLANNING AND DESIGN

Fluid collaboration between planning and design streamlines and quickens these critical phases of the concept-to-consumer cycle. A lot of time is consumed by the need for duplicate work and data entry. In Gartner/*Apparel's* study, line/range planning and merchandise/assortment planning were among the top focus areas more than a third of companies said they plan to address with PLM in the next 18 months.

With PLM embedded in ERP, designers have visibility of plans and price points. This helps to ensure they don't design styles that are too expensive to meet the retail selling price and, in turn, hit the target profit margin. At the same time, planners can see collections as they develop. This provides an excellent opportunity for teams to make course corrections. For example, planners can look into the solution to see that designers have far more dresses on deck for a season than the plan supports. Then they can engage in discussion with design colleagues to steer lines back within the plan's scope. When PLM is embedded with ERP, designers and planners also have a holistic view of information across seasons. For example, if designers and product developers are using a stand-alone PLM solution, and planners and merchandisers are using ERP, they may be working off different parameters for a given season. The PLM system may have a "spring/summer 2018" set up quite differently than how this selling period is structured within the ERP solution. If planning and design are using a common solution, everyone is on the same page, and it's much easier to compare notes, track results, trigger activities, and share updates. There is no need to re-enter data or translate how a line plan from one system should flow into the other.

SUPPLY CHAIN MANAGEMENT/ SOURCING

When the PLM and ERP solution is the same, there is a single point for both internal and external teams to add, access and analyze information. This enables closer collaboration with vendors, who can access the solution directly to provide updates and data, which keeps processes and production flow. This applies during product development as well as bulk manufacturing — and especially during the critical handoff between these two stages of the product lifecycle. This eliminates redundant data entry to set up the style separately in the ERP system. The carry-over information includes not only



the aforementioned pattern blocks and product specifications but also details such as wash-andcare, country-of-origin, and size information, which ultimately must go on product labels.

Some of the latest integrated PLM-ERP solutions give vendors direct access so that they can take responsibility for adding product specifications or making suggestions for colors or trim changes during both sampling and production, all to keep the order moving along as swiftly as possible. When PLM is embedded within ERP, it is simple to segment and track sample inventory separately from bulk order inventory, all the while having clear visibility to both. An integrated system makes it possible to tap into some finished samples to sell to customers, if desired, without such transactions needing to take place offline. Perhaps most importantly, the total cost of sampling is captured systematically and tied to final product costs. For example, with this visibility, a brand can better quantify which styles were the most cost-effective to bring to market (i.e., were five samples required or two? Did we repurpose design elements from a previous season? How did quality problems impact costs?). With potentially tens of thousands of samples being managed in a year, fashion companies are eager to bring these factors into a clearer focus.

QUALITY CONTROL

Quality control (QC) continues to be a major focal point for PLM exploration. It is the No. 3 business benefit apparel companies both "hope to achieve" and "have achieved" so far with the technology, according to the Gartner/ Apparel study. Indeed, some fashion companies see quality as an important lever in their latest strategies, especially as they manage it relative to product costs.

When all product specifications reside in a common system, QC can be performed much more efficiently. That's because internal teams and external vendors and auditors all know where to go to access the latest product information, including measurements, images, and instructions for how to perform gauality checks. When PLM is embedded in ERP, QC-related information can more fluidly follow a style from inception through production. This includes samples, incoming shipments, and outgoing orders. During the sampling stage, the QC checkpoints will be different, including more robust reviews of fabric quality and fit. But ultimately, many of the same quality requirements will transition seamlessly with the style when it is approved for mass production. Internal teams and external vendors and partners can easily reference the style's product development QC history as they commence their QC activities for the bulk order. Some end-to-end PLM-ERP solutions have the ability to randomly select items to undergo quality audits, during both the pre-production and production phases.

In conclusion, there are major benefits to having a fluid process flow from concept to consumer. To date, many fashion businesses have segmented their PLM activities "off to the side," managing them with point solutions. However, there is an opportunity to manage these activities within the holistic framework of the central ERP solution. The smoothest flow of processes, information, and exchanges between individuals and teams often come from the use of a common solution. Ideally, when PLM is embedded in ERP, businesses can leverage technology to encapsulate the entire product lifecycle, complete with checks and balances all along the way.



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