CONSUMER GOODS & RETAIL

POWER OF 3D IN FASHION

How to ready your organization for 3D

a whitepaper for Managers in the Fashion industry
Business executives spend a lot of time worrying about the supply chain, and all seem to be concerned with the same thing – control from product concept to final customer. Increased consumer demand for price, value and new products requires a new set of rules that emphasize efficient design and development processes used in conjunction with advanced technology to speed time-to-market.

**Overcoming Common Concerns**
By now, the well informed executive is aware of the profit potential of 3D prototyping but many assume their teams are not equipped to realize those benefits on their own. As they confront the 3D challenge – both opportunities and risks – many conclude that they lack the resources necessary to either invest or integrate this technology into their existing processes and IT systems. This situation provides a unique opportunity for technology partners that can help bridge the gap between 3D awareness and 3D readiness.

While the reasons for a move to 3D prototyping might be clear, not many companies truly understand the challenge. Despite their optimism, they find themselves ill equipped to develop a targeted approach or even fathom how to get started. To simplify this mystery, it might be best to set a side all of the disruptive potential of 3D prototypes for a more nuanced view of their application within traditional design and development cycles.

**Current Situation**
3D prototypes, in and of themselves, are not game-changers for the fashion and apparel industry. In fact, prototypes - as physical samples, have always served as the benchmark to validate new product designs since the inception of the fashion and apparel industry, as we know it. When viewed in this light, 3D prototypes should be looked upon to build on or improve the traditional design and product development model, not revolutionize it.

For all the advancements in IT systems over the last twenty years, one of the biggest challenges has been to devise solutions that seamlessly connect design and product development and subsequently link design and product development with manufacturing. Many companies looked to PLM to fill the gap, but all too often the relevant information wasn’t available or not utilized in a timely fashion.

Even with advanced pre-production tools, the design of fashion is still largely a manual process that remains offline. Traditionally, a physical sample is where product ideals first take tangible form and where cost and time to market pressure become a real bottleneck to commercialization and production. Once a physical sample is created, product development regrettably moves offline. Artifacts used early in development are abandoned and product decisions become dependent on physical samples. Consequently, if you are not one of fortunate few present during product edits, you could easily become disconnected from the process. Try as they may, pre-production teams struggle and often abandon system upkeep altogether until after development is complete.
Connecting Teams
Conversely, 3D prototypes support collaboration around a visual process and contribute to better decision-making earlier in the development cycle, and ongoing. Teams create fashion and more often than not these teams are spread around the world. The use of 3D prototypes keeps design, product development and manufacturing connected via the ability to exchange information visually and collaborate around a shared image. In this way, 3D prototypes provide opportunities to bridge the gaps that can arise between the many departments involved in product and collection development.

Evolution, Not Revolution
Experience has proven the quickest path for pre-production teams to integrate 3D prototypes into existing design and product development cycles is to replicate the aesthetic qualities of the physical samples they are intended to replace. Pre-production teams then need only to compare the 3D prototype to its corresponding physical sample, to determine if it is a viable alternative for product edit and approval decisions.

Despite any early success, companies should resist the urge to abandon physical sample development too soon, as each new design and development cycle will challenge 3D development teams to duplicate the complexity, exactness, speed and sheer number of 3D prototypes needed to satisfy design and merchant teams. Consecutive rounds of synchronized development and assessment of 3D prototypes together with physical samples, provides the best barometer of quality, speed, accuracy and volumes needed to ensure long-term adoption and reuse across the supply/value chain. A good rule of thumb to follow suggests a given physical sample should be considered for elimination, if-and-only-if design teams can derive all product edit and approval decisions from its 3D counterpart.
Moving Beyond Awareness

Each company deals with technology trends differently, they actively pursue strategies that align with their stage of readiness and their corporate objectives. Most will take a gradual approach in their pursuit of 3D prototyping. Some will leapfrog the proof-of-concept stage and move directly to 3D prototyping to accelerate the pace of design and product development. The truth is, there is no one-way to approach the 3D proposition. However, there are a few recommended methods to help business executives move beyond a general awareness of 3D prototyping, to develop an action based plan to justify initial technology investments and quickly win over potential skeptics.

• To quickly build credibility, focus initial 3D prototyping efforts on tactical, time-sensitive deliverables that are used early in the development cycle where users need only a good approximation of a style - 3D model, to gauge the viability of a new design or make timely decisions.

• Once 3D prototyping gains an audience, concentrate on areas where 3D prototypes can eliminate costly, one-off physical tasks, e.g. digital photography of samples for websites/brochures, replacing salesperson samples with 3D prototypes or archiving physical samples into a digital process to save time and cost.

• Learn to embrace pilot projects as they offer lean, startup principles, with clear progress indicators, require only small initial investments and provide plenty of ‘get outs’ up front.

For those companies ready to mobilize 3D prototypes, a sound bit of advice would be to follow the cardinal rule of lean startup methodologies – “learn to accept there is nothing wrong with failing, so long as you fail fast, know why and learn accordingly”. Adopting this philosophy will not only help gauge your organization’s readiness for change but could win you adulation with design and merchant teams, as most embrace the same philosophy as they work to bring new and innovative products to market. Which further illustrates why 3D prototyping should not be viewed with apprehension but seen as a logical next step to cut time and cost from traditional design and product development cycles.