THE SECOND (AND A LITTLE OF THE FIRST) C:
A Response To Fast Fashion

By Keith Hoover

"A little learning is a dangerous thing;
Drink deep, or taste not the Pierian spring."

—Alexander Pope, *"An Essay on Criticism"*

I intended to write an article on how to digitally color-match reserve heathers, but three things happened to change that: 1) I read last month's feature article on "fast fashion," 2) I traveled to China to present on "Total Appearance Measurement" with Ronnier Luo, Andrew Stockman, and Eric Kirchner, and 3) I heard Kim Glas's keynote address at the Savannah AATCC/SEAMS "Fabricating the Future" conference.

THE FALLOUT OF FACTS

"Think Fast—the Fallout of Fast Fashion," the feature article in the November/December 2025 *AATCC Review*, was seriously flawed, especially in assuming that 1) cancer-causing, planet-destroying dyes and chemicals are in widespread use, 2) "fast fashion" brands lead the industry in overproduction, and 3) synthetic fabrics are bad. If one is wrong on the facts, then any following conclusions are without merit.

Things started out innocently enough in the article, using Catherine Gelb's definition: "fast fashion [is] basically inexpensive fashion that is produced very quickly and is usually very trend worthy." Fair enough. But, as we read on, Jenny Davis, professor of practice for the fashion media program in the Division of Journalism at Southern Methodist University in Texas, expresses concern about the types of dyes used in fast fashion production. "The worst of the worst are the azo dyes and those break down into carcinogens, which can be dangerous for the people who are wearing them and also for the people who are working with the dyes when it [sic] breaks down."

According to Andrew Filarowski, former Technical Director and current Deputy Chief Executive of the Society of Dyers and Colourists (SDC). "Azo dyes make up *the majority of dyes sold globally*. The reality is that *some* were known to break down under specific conditions to form carcinogenic amines and **those dyes have been banned.** There are ISO test methods for the banned amines which have to be tested for under various pieces of legislation and, of course, any self-respecting brand will be testing. The major dye manufacturers all have their approved lists of dyes that conform and, of course, the banned amines all form part of the various certification schemes that exist, such as ZDHC, Bluesign, GOTS, and Oekotex [as well as brands' Restricted Substances Lists]."

Not satisfied with getting it wrong on azo dyes, Davis goes on to state, "You also have the additional fixers [sic] called mordants, and those are used to bond the dye to the fabric, because a lot of times synthetic dyes, they don't take on this kind of fabric. There are mordants that are based on aluminum that are better, but the really cheap mordants contain toxic chemicals…so you just have a whole mess of bad stuff that damages people and the planet."

Filarowski rebuts, "On the issue of mordants—they are simply not used. No dye class requires what is viewed as a mordant. There may be a misunderstanding with chrome dyes, but they form a complex between dye molecules to create a color which also impacts the interaction with the dye, but most are not applied by an

after-chrome method and if they are, then it's controlled, and even then, it is trivalent chromium. So, metal complex dyes exist and are used [to dye] a minor fiber, but they are not environmentally unfriendly."

Azos aren't deadly and mordants aren't in use. Well, except in a smattering of "natural dyes" (which actually do require a mordant to form a bond with the fiber [1]). Davis seems to have missed this point when she later states, "Whereas [with] a natural dye, you don't have toxic waste, a waste product, and you can reuse that to dye more fabric."

Then, it's 1999 all over again, with Kelly Drennan, founder of "Fashion Takes Action," a Canadian NGO, claiming, "The labor is outsourced, of course, to super low-wage countries. Most of them are not even being paid [a living wage] to make these clothes, so there's a lot of modern slavery happening in these supply chains."

There is no doubt that the apparel industry changed its vertically integrated business model over 30 years ago to exploit cheap labor and a non-existent regulatory burden. However, times have changed and Drennan's worldview is painfully anachronistic in 2025. "Cheap, low quality, Chinese clothes" is an outdated prejudice.

OVERPRODUCTION AND ITS ROOT CAUSE

But then, Drennan says, "Because it's so cheap to make fast fashion or ultra-fast fashion, there isn't this sort of level of thought that goes into planning the units. So, there's excess inventory, which oftentimes ends up being incinerated or landfilled [sic] if it can't be sold." First, consider this. The global apparel industry (including brands and their supply chains) generates nearly US$4 trillion in annual sales. Conventional (non-fast fashion) enterprise brands (annual revenue>US$1B) generate the lion's share of those sales. Those brands have inordinately long "fashion season" development cycles of 18 to 24 months from concept to in-store.

I asked Niall Maplesden, Director of The Knowledge Nexus Limited [2] in the UK about Drennan's contention, since he has extensive history working in the textile industry. "Let's look at companies like Shein and Temu. Their processes might lead to increased consumption, but not overproduction. The majority of their styles use the same fabric base. That's really important, since it gives volume over multiple styles. Their designs are AI based so they do not commit to production until sales arrive. Their designs are digitally printed and thus can be printed on-demand from the same roll of fabric, which reduces waste. This is a highly efficient process.

"Is it too much? In my opinion, yes. Are they garments that will last a long time? Not always. Are they worse than other larger, more traditional brands? No, not necessarily. Do they always contain banned or restricted chemicals? No, not at all. I am no fan of the products from Shein or Temu, but the business model is a refreshing take on the old factory-led models of the 1960s. In this case, the brand is the factory; a bit like Viyella was, or Gossard, or Aquascutum. The process is just hyper-efficient."

Drennan seems to be conflating overproduction (which is avoidable) with over-consumption (which, from the brand's perspective, is desirable). Reasonable people can disagree about whether or not increased consumption is a good thing, but the market seems to think it is.

Nevertheless, overproduction is a real thing—but Drennan has not identified the true root cause.

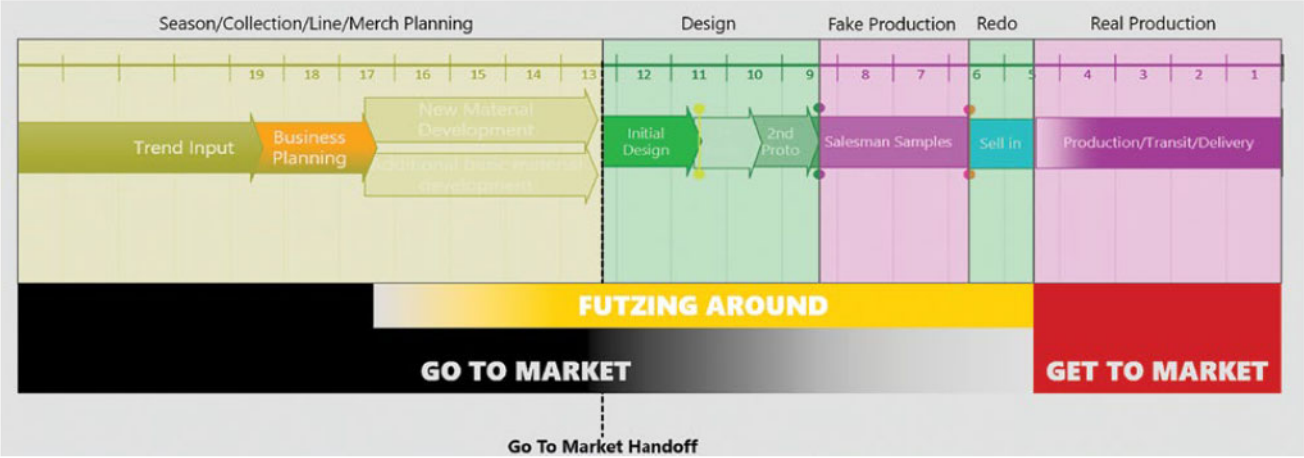

Figure 1. A typical product development calendar. There are, of course, variations, but not by much.

Given the volatility caused by social media, it's not surprising that enterprise brands cannot forecast one to two years out, which inevitably leads to overproduction.

Before we get ahead of ourselves, let's not skip over the bit about overproduction being "incinerated or landfilled [sic]." Anton Wilson of Guidance Solutions Ltd., provides insight into what happens to overproduction. "The Apparel Market Size is an all-encompassing number that includes the retailers, discount, liquidators, consignment shops, and everything in between. Liquidation includes discount resellers, consignments, charities (for tax write-off), and, in limited instances, product destruction (mostly luxury goods). All liquidation options involve added costs (accountants, tax attorneys, transportation). Anything that eliminates losses at first sale also eliminates the sales, revenues, and profits realized by these aftermarket sales channels."

And then there is the other side of the coin—if poor forecasting leads to overproduction, it also leads to *underproduction*. The former erodes margin due to markdowns and the latter erodes revenue due to missed sales (out-of-stock inventory).

Black Swan Textiles produced Table 1 in 2021 to estimate the value shortfall caused by long development cycles. It shows that underproduction can prevent up to $720B in sales while overproduction costs the industry $29B in profit.

Let's designate the current enterprise brand-driven business model as "Big Fashion." Big Fashion—not fast fashion—is responsible for the waste. While it may be socially virtuous to blame the world's problems on fast fashion, it is actually the apparel industry status quo that is driving the problem.

		USA		GLOBAL	
KPI		**Metric - Best**	**Metric - Worst**	**Metric - Best**	**Metric - Worst**
Total apparel market revenue	Aggregated annual apparel revenue at retail	$349,555,333,000	$349,555,330,000	$1,773,711,010,000	$1,773,711,010,000
Gross Margin	(Selling revenue - cost)/selling revenue	60%	60%	60%	60%
Average markdown at clearance	Average value of the initial unplanned markdown to move excess inventory to end customers	55%	55%	55%	55%
Average markdown at liquidation	Average value of the final unplanned markdown required to sell excess inventory to other resellers	90%	90%	90%	90%
% of goods sold at Target Price	A theoretical price factoring in all planned markdowns; the price against which performance metrics are judged	70%	50%	70%	50%
% of goods sold at a clearance	Volume of excess inventory requiring the initial unplanned markdown	26%	46%	26%	46%
% of goods liquidated	Volume of excess inventory requiring liquidation	4%	4%	4%	4%
Loss from overproduction	Cost of goods liquidated - revenue from liquidation	$5,109,213,150	$5,899,668,017	$25,925,130,475	$29,936,050,802
Full retail value of all goods produced	Apparel market revenue if all goods produced were sold at Target Price full value	$425,767,762,485	$491,639,001,406	$2,160,427,539,586	$2,494,670,900,141
Value shortfall from underproduction	Full retail value of all goods produced - total apparel market revenue	$76,212,429,485	$142,083,671,406	$386,716,529,586	$720,959,890,141

Table 1. Value erosion due to inadequate forecasting.

THE FLAWED BUSINESS MODEL

By debunking the fast fashion myth, we can start to see the real problem in our industry—the business model. To understand the business model, let's take a look at how we got to where we are today, courtesy of Black Swan Textiles. [3]

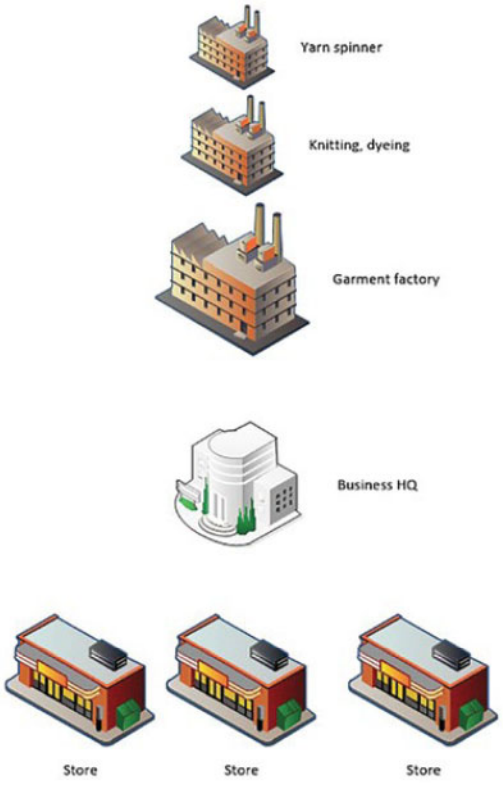

Figure 2. Vertical Integration.

1. "In the late 20th century, apparel manufacturing (and the innovation resulting from a deep understanding of apparel manufacturing) moved offshore, driven by the development and acceptance of a new "futures model" for sourcing. This new model traded the domestic production of current orders for overseas manufacturing of future orders. As a result, brands accepted longer outsourced production lead-times (12-24 months) as well as the risk and volatility inherent in forecasting actual consumer demand a year in advance of the market in return for significantly lower production costs. Consumer behavior at that time did not demand constantly changing style varieties as much as low retail pricing, so higher volume purchases of a few trend-right styles was a viable strategy.
2. "To facilitate this change, overseas suppliers developed "full package sourcing." These suppliers (also known as garment vendors) provided not only production capacity, but also product engineering and resources to develop fabrics, color, components, and final assembly in a "one-stop" product development and sourcing trip.
3. "That technical knowledge had previously resided in the American brand design houses and manufacturing supply chain (mills, factories, and component suppliers). This transfer of technical knowledge from American-based brands to overseas manufacturers further eroded domestic capabilities, since brands no longer valued employees with manufacturing experience and specific skills to manage complex product development. As a result, brands focused less on product innovation and more on subjective trend and fashion attributes. As this model demonstrated profitability and production shifted overseas, most domestic mills and factories were shuttered, leaving only those focusing on Berry-compliant programs.
4. "Brands chose to have little or no visibility into the various tiers of the component supply chain. Garment suppliers provided the single point of contact for the brands, acting as a contractor to procure components from a large in-region supply chain. The supply chain was made up of several tiers as follows: Tier 1—garment suppliers; Tier 2—mills; Tier 3—trim suppliers; Tier 4—yarn or other sub-component suppliers. Suppliers in all tiers produced components that went into products for many different brands. They had little to no visibility into the end products to which their components would be added. Each brand specified different processes and quality requirements, making it difficult for component suppliers to deliver acceptable shipments without adding administrative staff to coordinate with the garment vendor and keep up with a never-ending stream of follow-up emails tracking work in process.
5. "Working only with garment suppliers simplified the product development process for the brands but ultimately backfired as human rights issues were discovered and documented by various NGOs. Unwilling and unable to continue turning a blind eye, brands launched or supported numerous corporate social responsibility (CSR) programs to mitigate the risk of these violations throughout the supply chain.
6. "As increased wages and inflation eroded the economic advantage of each new overseas region, significant investment in other developing nations with lower labor costs lured textile manufacturing to relocate about every seven years. This trend not only kept the cost of manufacturing low for the brands, but it also constantly updated component manufacturing technology (yarn, material, etc.) since only the latest equipment was placed in each new region. Manufacturing eventually landed in China and, with nowhere else to go, it has remained there for well over the typical seven-year cycle.

7. "New technology and automation drove improved manufacturing for component makers based on advances in machine and process design. Garment construction, however, remained technologically primitive since the manufacturing process relied on old technology (the sewing machine was invented in 1790) paired with low-cost manual labor. Developing nations welcomed the introduction of the apparel industry since it had low entry-level requirements for technology. Introducing efficiency through automation or advanced technology was at cross-purposes with governmental goals that valued employment for a low-skilled population going through the first and second industrial revolutions simultaneously (populations moving from rural to urban areas and the introduction of the assembly line in manufacturing). Low-cost unskilled labor was the draw for each region into which the apparel industry was introduced ("chasing the needle").

8. "Over time, the cost advantages of overseas manufacturing have evaporated, diminishing the immunity to economic factors that chasing the needle provided. Overseas energy costs and real estate values have rapidly increased. Labor costs and turnover, as well as labor unrest and political instability, are on the rise. Human rights and environmental compliance have become harder and costlier to monitor—and are finally being factored into the cost of goods sold. All of this has eroded the value of the futures model. Apparel brand leaders are actively seeking change, but 'what's next' is unclear."

This analysis was written in 2018. In the intervening seven years, the overseas textile manufacturing industry has quietly advanced in both technology and strategic insight—even while the West's focus has strayed because of a fundamental ignorance of the basics, as seen in last month's "fast fashion" article. There is a developing theme amongst global apparel manufacturers driven by frustration with the Western apparel brands' long, wasteful, and inefficient product development processes. And that theme is "we can do it better."

FROM FOLLOWING TO LEADING

During a recent trip with a team from Zhejiang University to present insights on Total Appearance Measurement to Chinese universities as well as automotive and apparel manufacturers, it became clear that their attitude and capability maturity is no longer that of subservient contract manufacturers to Western brands. Instead, they have surpassed the competence of many of their customers. That is what happens when a manufacturing-driven society crosses a certain threshold of capability maturity. Their focus changes from following to leading.

During the trip, we visited a garment factory that was a dream come true. They had invested in just about every technology to support garment development, including color, design, sampling (both virtual and physical), and production. And it was all integrated. For instance, a

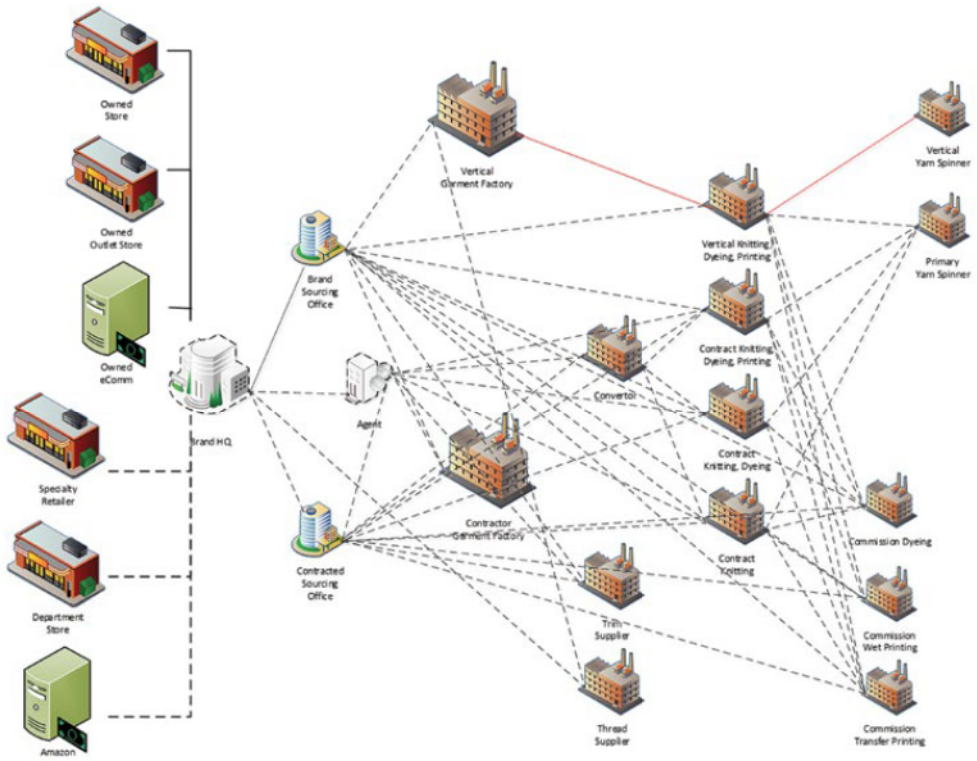

Figure 3. Contract manufacturing (non vertical integration.)

Figure 4. The Total Appearance Measurement (TAM) Team, from left to right: Liangzhuang Wei, Keith Hoover, Ronnier Luo, Eric Kirchner, and Andrew Stockman.

state-of-the-art prototype sampling team not only made the samples, but defined the sewing processes that were implemented in production. What they wanted help on was defining a legitimate color management process that they could evangelize to their brand customers. This vendor knew about and understood all that has been covered in "The Second C" over the past two years, but they are still forced by their brand customers to approach color like it's 1985—and accept all the wasted time and costs associated with this backwards approach.

And it wasn't just color. They showed me a warehouse full of sample fabric used to make prototypes for styles that were dropped. They showed me a sea of cubicles housing associates to respond to mindless work in progress (WIP) tracking emails. They showed me a lineup of ten different lightboxes, each required by a different brand. In short, they showed me the waste that they are forced to support—all for brands breathlessly touting sustainability.

WHAT WOULD YOU DO?

What would you do if you were in that situation? Let's break it down. As a garment vendor, you contract with many different brands to convert designs into finished garments. As a part of that process, you 1) source fabric and trims, 2) develop and track color approvals on each component, 3) design the technical patterns used to create approved samples that reflect both the tech pack details and fit requirements, 4) convert the approved patterns into markers, 5) set up optimized sewing lines based on maximum throughput and ergonomics, 6) assure the quality of the finished goods, 7) package the finished goods, and 8) oversee logistics. And as the manufacturer, you own the intellectual property (IP) for the output of each of those steps (unless your vendor agreement stipulates that the brand owns the IP, which very few do).

For all intents and purposes, you own a manufacturing-ready library of hundreds of thousands of styles. What you don't own are the brands and the merchant insight, that is, what styles should be developed, marketed, and sold.

THE RETURN OF VERTICAL INTEGRATION, BUT WITH A TWIST

Vertical integration is typically defined as a model in which the apparel brand owns its manufacturing base. US apparel brands were vertically integrated until around 40 years ago. Then, the futures model described above changed all of that. Given the aggregated IP owned by apparel manufacturers, there is a strong incentive to re-integrate, but with the factories owning the brands instead of the brands owning the factories. However, the ability to monetize all of the IP mentioned above will require data organization.

In the current apparel model, vendors are set up to receive, develop, and manufacture products. This is largely a one-way process in that the data and assets aren't organized for reuse. But what if they were? What if you could search a database of all the styles produced, filtering by product category, silhouette, cost, and material? And, what if you could see the sales history of each? And what if you could pull up the sewing line setup for each?

You would have everything you need to compete—and crush—the legacy brands. Everything, that is, except the merchant capability and the brand. But, in a time when legacy brands and retailers continue to struggle under the burden of their inefficiency with layoffs and cutbacks; in a time when legacy brands underperform; in a time bereft of newly-created enterprise brands, the industry might be ripe for the picking.

So, you could acquire a legacy brand, but you still don't have the straw that stirs the drink—the Merchant.

MERCHANTS AS ELEVATOR OPERATORS

There was a time when elevators required operators, when phones required switchboards, when newspapers required typesetters (when newspapers were a thing). Technology changed all of that, automating operations and streamlining control.

Think of all the product recommendations you receive when you are online. There are no merchants gazing into a crystal ball for months, to make those

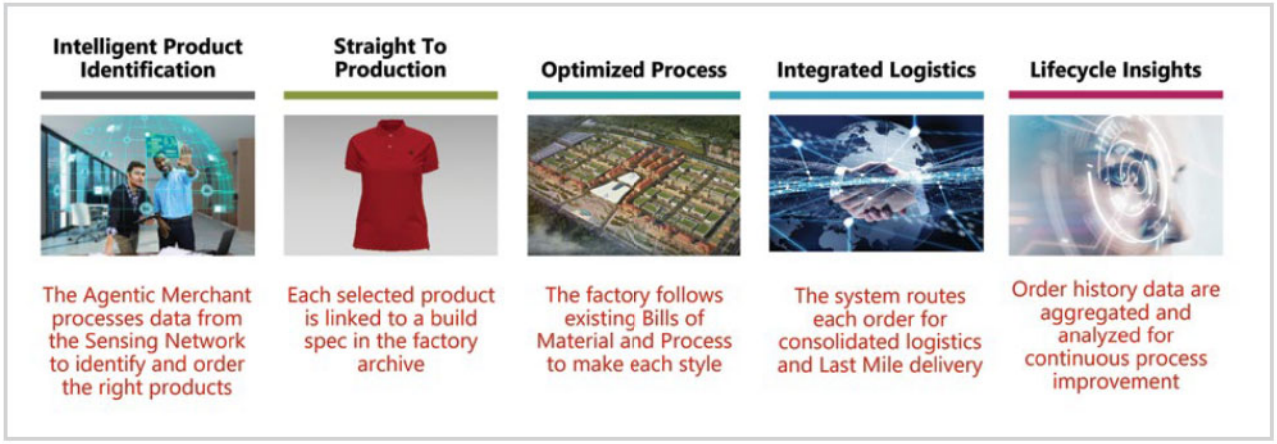

Figure 5. Manufacturing-driven vertical reintegration.

recommendations. It's all data analytics— and new agentic AI systems that "can act autonomously, plan, and execute complex, multi-step tasks without constant human intervention." (Thanks, Google AI-powered overview.) Merchants are history (I can already hear the heads exploding). But, go back to Figure 1—look at all the merchant-driven "Go To Market" time spent in developing conventional line plans for "fashion seasons."

Let's take it a step further. A business model built around "fashion seasons" and line plans is a throwback to when weather was the main driver of fashion sales. It requires accurate forecasting and warehouses to house inventory—lots of inventory. We have already seen how long-term forecasting is a major drag on profitability, so the whole concept of fashion seasons needs to go the way of elevator operators.

What replaces it is basically an open to buy model.

- Produce smaller orders just in time to meet demand
- If they keep selling, then replenish
- If sales drop, then stop producing
- If new products from competitors hit the market, then quickly develop and manufacture them

It's that simple. No crystal balls. No forecasting. No excess inventory. No markdowns. No liquidation. No Merchants.

Unfortunately, this model is impossible to achieve as the industry is set up today. But, with the new vertical reintegration model described above—supplemented with new owned brands and agentic merchants—it's not only possible, but it will quickly destroy the legacy guys.

This new business model not only is more efficient, it converts the "development costs" associated with the current Fashion Season model into profit. And, because this new model is based on operational excellence, then it truly is sustainable. That's the good news. The bad news is this. The factories capable of adopting the model are all overseas. Less than 3% of apparel sold in the US is made in the US. US garment production is based on Berry compliance—the requirement that military uniforms be made in the US.

THE HOBBESIAN FUTURE OF US APPAREL BRANDS

So, what started out 40 years ago as a way to exploit cheap labor and non-existent regulatory burdens not only killed off US apparel manufacturing, but it is likely to kill off US brands, as well. And with that change, no more labdip approvals, no more tech pack building, no more fit sessions, and no more Q4 layoffs (there'll be no one to lay off). Oh, and no more merchant bonuses.

Pessimistic? Perhaps. Let's move on to the recent AATCC conference in Savannah.

THE GENERAL'S NEW CLOTHES

Kimberly Glas, President & CEO of the National Council of Trade Organizations (NCTO) delivered a keynote address, "The Global Trade Shakeup: What It Means for US Textiles Now" at the 2025 joint AATCC & SEAMS "Fabricating the Future" Annual Conference. Glas covered many trade-related topics including an update on the Berry Amendment.

In case you missed it, according to the International Trade Commission, "The Berry Amendment is a statutory requirement that restricts the Department of War (DoW) from using funds appropriated or otherwise available to DoW for procurement of food, **clothing**,

fabrics, **fibers**, **yarns**, **other made-up textiles**, and hand or measuring tools that are not grown, reprocessed, reused, or produced in the United States.

In short, US military uniforms must be produced domestically, not sourced from potential enemies, or at least those who do not share US priorities and interests. That makes sense. Yet, Glas warned that there are those at the Department of War (DoW) who want to get rid of the Berry Amendment. And she was quite animated in her presentation of this threat to the US textile industry.

Frankly, I was surprised at this announcement. After all, the current administration has been clear in its desire to reshore manufacturing in general and willing to impose significant tariffs on countries that are major apparel manufacturers. It didn't make sense that the DoW would want to outsource its uniform procurement process. But then, one issue in particular popped up. Glas stated that some generals complained that some uniform styles were backordered.

Instead of addressing that issue, she claimed that the US had plenty of capacity to meet demand—theoretical capacity, that is. Many US factories could run three shifts, but do not. And I go back to NCTO's own number—less than 3% of apparel sold in the US is made in the US. So, I asked Glas—what's causing the problem? Rather than getting into details, she reiterated the need to produce uniforms domestically.

What she didn't mention was the following:

- The government procurement process for uniforms makes a root canal seem like a vacation
- The various approval processes are head scratchers—for instance, colors are approved visually, not digitally
- Berry-compliant factories have to compete with UNICOR (federally funded programs producing uniforms using prison labor at 50 cents an hour)
- The technology and capability maturity of many Berry-compliant factories lag far behind overseas producers due to a dearth of investment in upgrades
- Skilled sewers are aging out of the workforce
- Rooting for war is the simplest way for a Berry-compliant garment factory to increase sales

It seems like someone missed something if we're spending trillions on defense but can't clothe our warfighters.

I couldn't help but wonder—how did it come to this? If, in 2025, a huge number of apparel-related jobs have evaporated (US apparel industry employment fell by 72.6% between 1998 and 2012), we're having trouble procuring uniforms for our warfighters, and the future of US based apparel brands is in jeopardy, how can anyone claim that the textile and apparel industry has had effective advocates in Washington?

I'm not much of an advocate for government intervention, but significant problems lie ahead—problems we have known about for a long time, largely caused by government policies. Perhaps our elected officials should get back to work and focus on supporting the solutions that we need. Let me end with the conclusion of the 2018 Black Swan article referenced earlier.

"In the late 20th century, US apparel brands made a strategic decision to end their vertical manufacturing integration in order to take advantage of low-cost labor in developing nations around the world. There were significant gains in short-term margin. However, changes in customer behavior and digital technology have diminished the value of that strategy over time. Lack of 1) speed, 2) manufacturing proficiency, and 3) sustainability—the unintended consequences of that strategy—are barriers to profitability today and growth for the future.

"Other industries, from aeronautics to food and beverage, maintained control over their processes by adopting a different strategy for growth. They built digital enterprises enabling an unbroken digital thread from product planning and design through final production. Those responsible for the US apparel industry can learn from these other industries and develop a comparable approach to change the way apparel is designed and made. To accomplish this, brands and technology providers can build an apparel digital enterprise that better and more profitably meets customers' needs and creates a domestic apparel manufacturing industry that will lead the world.

"After all, this is a story about leadership. A new approach to apparel will build a strong industry network including elements of technology, economics, job creation, process improvement, and workforce development. The challenge here—the problem to be solved—is to create a new apparel industry that not only benefits Americans, but also fundamentally elevates the economic landscape of the United States.

"No country can lead the world without a strong economy built on a foundation of making things. The unique history of *American Ingenuity* is based on transforming ideas into the best products in the world. This is the ultimate facet of democracy—anyone from any background can contribute in the workforce, either

as an inventor or as a maker. The fulfillment of this vision—returning textile manufacturing leadership to America—will enable fulfillment of another kind. The pride and self-respect that grows in each person engaged in the new apparel industry are the underpinnings of a strong, shared culture. The catalyst that this new plan provides, along with the vision of those who build it, will deliver a thriving, new American industry benefitting many generations to follow."

I have presented two radically different scenarios for our future. Understanding our industry will likely determine our path forward.

Notes

[1] **https://en.wikipedia.org/wiki/Natural_dye**
[2] **https://www.theknowledgenexus.co.uk/**
[3] **https://medium.com/@BlackSwanText/the-metavertical-apparel-model-e377323315c0**
[4] In his 1651 book, *Leviathan*, Thomas Hobbes described life in its natural state as "solitary, poor, nasty, brutish, and short." Perhaps not unlike the future of many apparel brands.

Keith Hoover, President of Black Swan Textiles, implements manufacturing-centric digital processes for color and fabric development. He has implemented digital color management programs for Ralph Lauren, Target, Lands' End, JCPenney, and Under Armour, ultimately leading to a process that eliminated lab dips altogether. At Under Armour, Hoover championed the UA Lighthouse, driving digitalization and advanced manufacturing processes to explore local-for-local sourcing. He has worked hands-on in mills worldwide and is a frequent AATCC presenter.

Articles from The Second C: Series

- Hoover, K. The Second C: Color with a Purpose. *AATCC Review*. **2022**, *22* (1), 36-39.
- Hoover, K. The Second C: From Inspiration to Replication. *AATCC Review*, **2022**, *22* (2), 28-32.
- Hoover, K. The Second C: Lab Dips—The First Circle of Hell (Part 1). *AATCC Review*, **2022**, *22* (3), 26-30.
- Hoover, K. The Second C: Lab Dips—The First Circle of Hell (Part 2). *AATCC Review*, **2022**, *22* (4), 32-36.
- Hoover, K. The Second C: Leaving Limbo. *AATCC Review*, **2022**, *22* (5), 34-39.
- Hoover, K. The Second C: The Sixth Circle of Hell—Heresy, Part 1. *AATCC Review*, **2022**, *22* (6), 34-39.
- Hoover, K. The Second C: The Sixth Circle of Hell—Heresy, Part 2. *AATCC Review*, **2023**, *23* (1), 26-33.
- Hoover, K.; Merritt, R. The Second C: The Ninth Sphere of Paradise—Primum Mobile, Part 1. *AATCC Review*, **2023**, *23* (2), 22-28.
- Hoover, K. The Second C: The Ninth Sphere of Paradise—Primum Mobile, Part 2. *AATCC Review*, **2023**, *23* (3), 22-28.
- Hoover, K. The Second C: The Ninth Sphere of Paradise—Primum Mobile, Part 3. *AATCC Review*, **2023**, *23* (4), 26-31.
- Hoover, K. The Second C: The Ninth Sphere of Paradise—Primum Mobile, Part 4. *AATCC Review*, **2023**, *23* (5), 34-39.
- Hoover, K. The Second C: The Cost of Color. *AATCC Review*, **2023**, *23* (6), 34-43.
- Hoover, K. The Second C: The Truth About Color Revisited. *AATCC Review*, **2024**, *24* (1), 26-33.
- Hoover, K. The Second C: A Higher Class of Problem. *AATCC Review*, **2024**, *24* (2), 24-28.
- Hoover, K. The Second C: A Higher Class of Problem, Part 2. *AATCC Review*, **2024**, *24* (3), 32-36.
- Hoover, K. The Second C: Two World Views, *AATCC Review*, **2024**, *24* (4), 32-39.
- Hoover, K. The Second C: Going To the LOO, Part 1: Dips, Diapers, and the Standard Observer, *AATCC Review*, **2024**, *24* (5), 40-43.
- Hoover, K. The Second C: Going To the LOO, Part 2: Oedipus Meets the Standard Observer, *AATCC Review*, **2024**, *24* (6), 24-28.
- Hoover, K. The Second C: Going To the LOO, Part 3: Chromalucense & the Golden Eye, *AATCC Review*, **2025**, *25* (1), 24-30.
- Hoover, K., Kiser, K., The Second C: Intentional Color Loss, *AATCC Review*, **2025**, *25* (2), 24-29.
- Hoover, K., The Second C: Modeling Fabric Hand for the Apparel Industry, *AATCC Review*, **2025**, *25* (3), 26-33.
- Hoover, K., The Second C: Observer Metamerism, *AATCC Review*, **2025**, *25* (4), 26-31.
- Hoover, K., The Second C: An Interview with Chris Sargeant *AATCC Review*, **2025**, *25* (5), 24-30.
- Hoover, K., The Second C: Blocking & Tacking, Part 1 *AATCC Review*, **2025**, *25* (6), 30-35.