Reprinted from

THE ASIAN WALL STREET JOURNAL.

THURSDAY, SEPTEMBER 11, 2003

COLUMN ONE

Asian Apparel Company Introduces New Wrinkle To World Manufacturing

Suppliers Like TAL Play a Bigger Role In U.S. Chains' Inventory Management

Pitching Penney the Shirts It Needs

By GABRIEL KAHN

On a Saturday afternoon in August, Carolyn Thurmond walked into a J.C. Penney Co. store in Atlanta's North Lake mall and bought a white Stafford wrinkle-free dress shirt for her husband, size 17 neck, 34/35 sleeve.

On Monday morning, a computer technician in Hong Kong downloaded a record of the sale. And by Wednesday afternoon, a factory worker in Taiwan had packed an identical replacement shirt into a bundle to be shipped back to the Atlanta store.

Harry Lee

This speedy process, part of a streamlined supply-chain and production system for dress shirts that was years in the making, has put Penney at the forefront of the retailing revolution. In an industry where the goal is speedy turnaround of merchandise, Penney stores now hold almost no dress-shirt inventory. Less than a decade ago, Penney would have had thousands of identical shirts warehoused across the U.S., soaking up the company's capital and slowly going out of style.

It is also a process from which Penney is conspicuously absent. The entire program is designed and operated by TAL Apparel Ltd., a closely held Hong Kong shirt maker. TAL collects point-of-sales data for Penney's own-brand dress shirts directly from the 1,040 stores, and runs the numbers through a computer model it designed. TAL then decides how many shirts to make, and in what color and size. And TAL sends the shirts from its factories directly to each store, bypassing Penney's warehouses—and its corporate decision makers—entirely.

Over the same weekend that Ms. Thurmond made her purchase, the same Penney store in Atlanta sold two sage-colored Crazy Horse brand dress shirts, 17 neck, 34/35 sleeve, leaving none in stock. Based on a review of past sales data, TAL's computer system determined that the ideal inventory level for that color and size at that particular store is two. Without consulting Penney, the TAL factory in Taiwan made two new shirts, sending one by sea to arrive 28 days later, and the other by air, to arrive by the following weekend. It sent the bill to Penney headquarters.

Instead of asking Penney what it would like to purchase, "I tell them how many shirts they just bought," explains Harry Lee, TAL's managing director.

Filling a Gap

TAL is a no-name giant, the maker of one in eight dress shirts sold in the U.S. And its close relationship with U.S. retailers is part of a power shift taking place in global manufacturing. As retailers strive to cut costs and keep pace with consumer tastes, they are coming to depend more on suppliers who can respond swiftly to their changing needs. That has opened up an opportunity for shrewd manufacturers, such as TAL, to grab more of the decision-making power. TAL has rushed to fill this gap by taking over key areas such as sales forecasting and inventory management. It is now pushing into the heart of U.S. retail operations, designing clothes for customers like Penney to sell and market under their own brands.

TAL was founded in 1947 when Chinese border guards blocked Mr. Lee's uncle, C.C. Lee, from importing state-of-the-art weaving machines to Shanghai for fear they would destroy the local textile industry. Instead, he set up shop in Hong Kong, then under British rule. Leveraging its low-cost Asian manufacturing base, TAL became one of the world's largest shirt makers. It supplies labels such as J. Crew, Calvin Klein, Banana Republic, Tommy Hilfiger, Liz Claiborne, Ralph Lauren and Brooks Brothers. Mr. Lee, 60, joined the family business in 1973 after earning a Ph.D. in electrical engineering in the U.S. and a stint at Bell Labs.

Now, TAL is using its manufacturing might to push from the Asian factory floor to the front of American retailing. It is negotiating a deal to manage Brooks Brothers' shirt inventory the same way it does Penney's. For Lands' End, TAL stitches made-to-measure pants and sends them by air freight from its Malaysia factory straight to customers in the U.S., complete with a shipping invoice that carries the Lands' End logo.

'That Is the Future'

Retailers have been willing to retreat from functions that a few years ago might have seemed essential because TAL does them better and at a lower cost. Rodney Birkins Jr., vice president for sourcing of J.C. Penney Private Brands Inc., says the added efficiency the company has been able to achieve with TAL is "phenomenal." Before it started working with TAL a decade ago, Penney would routinely hold up to six months of inventory in its warehouses and three months at its stores. Now, for the shirt lines that TAL handles, "it's zero," boasts Mr. Birkins.

And because all of the decision making is now done at the factory in Asia, TAL can respond instantly to changes in consumer demand, either ramping up production if there is a spike in sales, or dialing it down if there is a slump. "It directly links the manufacturer to the customer," says Mr. Birkins. "That is the future."

Over the past few years, retailers across the board have been forced to flatten the amount of inventory they hold to reduce costs and avoid markdowns of goods left on the shelf. Because retail sales at big department stores are flat, the only way they can boost their bottom line "is to reduce their asset base," says Bill Dreher, a senior retail analyst at Deutsche Bank in New York. "They have to be able to do more with less."

That often means working more closely with suppliers to make sure stores can quickly fill orders for popular items. Wal-Mart has pioneered a system that opens its computer system up to suppliers all over the world. Suppliers can then track how their items are selling overall or even at a particular store. The system helps suppliers anticipate demand and communicate better with Wal-Mart buyers. But the retail company still handles all the warehousing and distribution of its goods, and it stops short of allowing its suppliers to place their own orders. "That's still a Wal-Mart decision," says Andrew Tsuei, the company's vice president of global sourcing.

The way Penney turned over a chunk of its inventory management to a manufacturer is radical in the retail industry.

(over please)

"You are giving away a pretty important function when you outsource your inventory management," says Wai-Chan Chan, a principal with McKinsey & Co. in Hong Kong. "That's something that not a lot of retailers want to part with."

Advantages to Backseat Role

Even Penney was reluctant to relinquish that power at first, and it took the step only after building up trust over years with TAL. But the system proved so effective that Penney has now let TAL take the arrangement one step further—designing and handling the market-testing of new styles for its in-store brands, such as Stafford and Crazy Horse. TAL's design teams in New York and Dallas come up with a new style, and within a month its factories can churn out 100,000 new shirts, which are offered for sale at 50 selected Penney stores. Not nearly all of them will sell, of course. After analyzing sales data for a month, TAL—not Penney—decides how many of the new shirts to make and in what color.

Although this relegates Penney to a backseat role in its own business, it has advantages. Because TAL manages the entire process, from design to ordering yarn, it can bring a new style from the testing stage to full-scale retail roll-out in four months, much faster than Penney could ever do on its own. The system also allows consumers, not marketing managers, to pick the style they like. "When you can put something on the floor that the customer has already voted on is when we make a lot of money," says Mr. Birkins.

TAL moved into this new business in response to pressures. It has watched the price of its shirts fall almost 20% in five years as low-cost textile manufacturing in China has exploded. It could jump even more in 2005 when textile-importing nations like the U.S. must phase out quotas on members of the World Trade Organization. Most of TAL's production is in countries with higher wages than Guangdong, such as Thailand, Malaysia, Taiwan and Hong Kong. So "our customers need a reason to buy from us," Mr. Lee says.

TAL learned the supply-chain business the hard way. In 1988, an American wholesaler that handled its shirts, Damon Holdings Inc., failed. Mr. Lee, fearing a loss of sales and figuring he understood the wholesaling business, bought Damon. The result was "a big shock." A manager TAL put in charge of Damon went on a buying spree, and soon its warehouses were crammed with two years' worth of shirt inventory that was going out of style. Shirts that cost $10 to make had to be sold for $3 each.

By the time TAL closed Damon in 1991, it had incurred a $50 million loss. But the experience got Mr. Lee thinking about a way to do business more efficiently, by linking his Asian factories directly with U.S. stores. "The failure gave us a head start," he says.

Around the same time, TAL began supplying Penney with some of its house-brand shirts. Mr. Lee saw that Penney was holding as much as nine months of inventory, twice what most competitors kept. "You didn't have to be a genius to realize you can do a lot better than that," he says. Visiting Penney headquarters near Dallas, Mr. Lee floated a radical solution: Why not have TAL supply Penney's stores directly instead of sending bulk orders to a warehouse in the U.S.?

Although Mr. Birkins had worked closely with TAL, he was skeptical about letting a manufacturer try its hand at supply-chain management. But he saw that potential savings were huge. It cost Penney 29 cents a shirt to have its warehouse workers sort out orders in the U.S. TAL could do it for 14 cents.

And such a system would let Penney respond much faster to consumer demand. This had been a problem for the retailer, which often took months to resupply hot-selling styles. Stores ended up missing sales of these styles but holding less-popular models they had to move at a discount.

Mr. Birkins decided to pitch the idea to the company. It met a brick wall. Each division found fault with it. Executives who ran warehousing said it could prove disastrous if TAL didn't deliver on time or to the right stores. Techies worried that computer systems wouldn't be compatible. The plan sat for several years, until a senior Penney manager began a push to improve efficiency by reducing inventory across the board. "We used that as our wedge," Mr. Birkins says. "That turned it."

It took TAL another year to set up the system in Asia. Determined that it come off without a hitch, Mr. Lee started by supplying a single Penney store in Kansas City, Missouri. He enlisted a Chinese numerologist to choose an auspicious day: June 20, 1997. Factory workers toasted the occasion with champagne.

Within months, TAL was delivering directly to all of Penney's stores in North America. Stores' inventory levels started dropping.

Mr. Lee saw another opportunity. Penney's internal sales forecasts often missed, overestimating shirt needs by as many as two months' worth. Penney's blames the problem on its older-generation software. Sales forecasting is one of the most difficult tricks for retailers to master. For most retailers, reductions in the amount of inventory they hold has left little room for error.

Convinced he could do better, Mr. Lee pitched an even more outlandish idea: Why not let TAL staff in Hong Kong forecast how many shirts Penney's stores would need each week? This time, Penney executives were listening.

'All the Pieces of the Puzzle'

Mr. Lee was operating on a simple premise. If he could get sales data straight from the stores, he could take the pulse of consumer demand and respond instantly by ordering more fabric and increasing production when needed. Penney's buyers were just getting in the way. "I can do all the pieces of the puzzle," he says.

He hired dozens of programmers, who designed a computer model to estimate the ideal inventory for each color, size and style of shirt at each Penney store. Penney stepped back, giving Mr. Lee the room he needed to make the system work. The retailer gave Mr. Lee goals for how often stores' inventory should be replenished, and let him do the rest. "It's on autopilot," says Mr. Birkins, "and TAL is the autopilot."

Mr. Lee's computer model, tailored to each individual Penney store, began to outpace Penney's system, which it still uses for products other than shirts. Inventory turnover for TAL's shirts increased by almost 50%.

His system hasn't been flawless. Ming Chen, a manager at TAL's Taiwan factory, recalls a few occasions when TAL underestimated Penney's needs significantly. She says the factory "sacrificed other customers" to rush out Penney's order first, and it air-freighted some shirts to be sure they arrived on time. That's "a painful decision," she says, because air freight costs 10 times as much as ocean shipping, "but sometimes you have to decide which customers you're going to take care of."

Sitting in his Hong Kong headquarters, in a neighborhood whose factories have given way to office space, Mr. Lee is thinking of ways to push his idea to the next level. He envisions extending his streamlined delivery system beyond shirts. He wants to form a joint venture with Penney that would manage the supply chain for some other manufacturers that supply the retailer. "Why not consolidate it all here, in a warehouse?" he asks. "We have lower labor costs and we're on the ground here, we can react much faster to changes." If one factory has a quality problem, we can switch to another one, he says.

Mr. Birkins says Penney is seriously considering the idea.

—Dan Morse contributed to this article.