A SUPPLEMENT TO Apparel

1ST ANNUAL

TOP TECHNOLOGY TRENDS

RESEARCH STUDY
AND ANALYSIS

IN THE APPAREL MARKET

Welcome to the first annual "Top Technology Trends in the Apparel Market" report. *Apparel* Magazine and AMR Research have teamed up to conduct this annual survey to provide insight into how apparel companies are using technology and identify the key priorities as we look ahead to the next 24 months.

Each year we will track the apparel market's plans for operational IT initiatives across the enterprise. In addition, we'll take a deeper look at some specific areas that are getting a lot of attention or warrant a unique focus. For instance, this year we look at the state of RFID initiatives and ERP.

We would like to thank all of the participants for such a great response rate. We believe that this report will provide the most comprehensive information available today about where apparel companies are focusing their technology efforts.

Apparel

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TRACKING APPAREL TECHNOLOGY TRENDS

There are hot spots of investment interest in PLM and sourcing solutions as well as retail applications that enable a more complex level of assortment planning and merchandising.

By Michael Barrett, Research Director - Retail, AMR Research

Apparel retailers, brands and manufacturers know there are areas — from product development to sourcing to e-commerce — where they need to improve their performance, lest they be left in the dust by their competitors.

Many apparel businesses, large and small, are investigating their options for technology to help them create, source and sell products more efficiently. In the first of what will be an annual research study, AMR Research and *Apparel* asked these companies to tell us about the drivers behind their technology investment plans and the types of systems that were captivating their attention in the short term.

Who responded?

Let's take a quick look at who responded to the survey. In this first year for the study, we had more than 190 companies respond to the survey. Apparel manufacturers led the group, representing 59 percent of the responses, followed by specialty vertical retailers (17 percent), traditional retailers with some level of private brand business (13 percent) and home fashions manufacturers (4 percent). The remaining 7 percent categorized themselves as "other."

The size of the companies that participated varied significantly, so in an effort to provide the best context for our readers, we segmented the results by size of company. Small companies (<$100M) represent 60 percent of the responses, while mid-sized ($100M-$500M) and large (>$500M) firms represented 22 percent and 18 percent, respectively.

The core challenges

Without question, the entire retail landscape is getting more and more competitive. Consumers are becoming more and more challenging to understand as they commonly act outside of their core demographic profiles, trading up for luxury and down for basics in increasing numbers. Retailers continue to open more stores (and increase assortments), developers open more malls, and global retailers are entering the U.S. market at a quickening pace. All of this creates more choices for consumers, challenging the notion of loyalty and increasing the difficulty in creating a strong connection between a brand and the consumer.

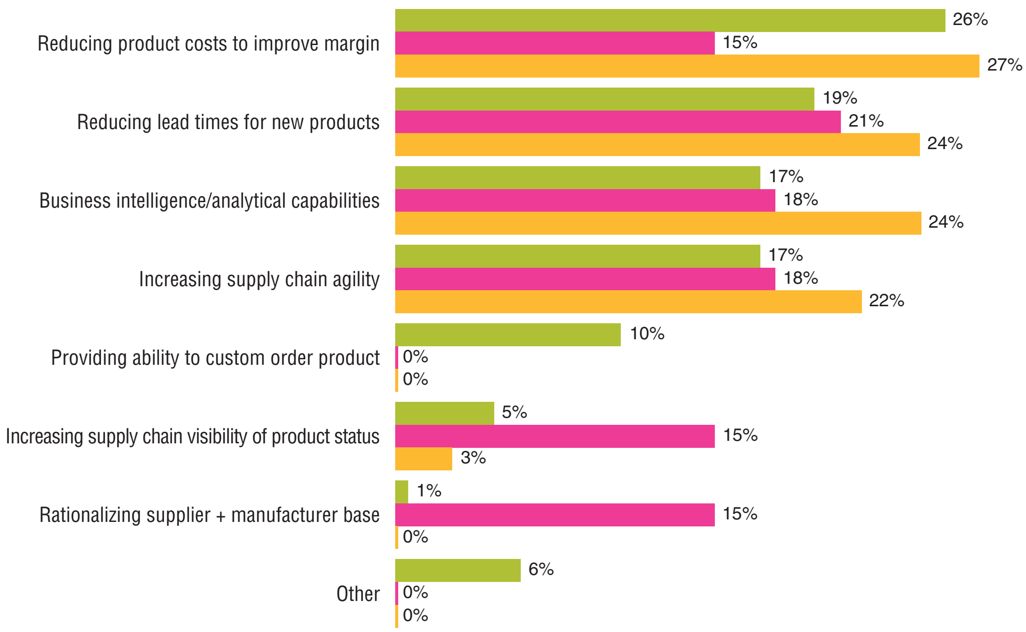
The apparel marketplace faces many of the same challenges and bears the added complexity of meeting consumers' expectations for fashion in an environment where information, ideas and trends travel the globe at speeds we have never seen before. As the lifecycle of each trend shrinks, so do the lifecycles of the products that address that trend.

In the apparel sector, globalization impacted the supply side of the business long before it did the retail landscape. As companies continue migrating sourcing and manufacturing operations to international locations, whether Asia, Central America or other regions, for lower-cost production, new challenges have emerged in lead times and process efficiency.

According to our survey, these were the most important operational initiatives facing apparel companies today (see Chart 1):

CHART 1 — Most important business initiatives for 2007

N=192 apparel retailers/manufacturers



- **Reducing costs to improve margins** — There are a couple of significant factors that are making cost reduction a necessary initiative. First, in an environment where SKU counts are generally rising and the ratio of core fabrics to silhouettes creeps closer to one to one, companies have found that they can't gain the same volume discounts on materials or production runs. FOBs tend to rise in this scenario. Second, many U.S.-based apparel companies (branded and private brand) are still in the process of setting up and streamlining their overseas sourcing and buying operations to take full advantage of the lower cost of production. These efforts come in the form of identifying new sources of supply for materials and trims, developing stronger relationships with a smaller group of vendors and gaining visibility to the current levels of spending with mills and suppliers in order to consolidate and negotiate better costs. Large apparel manufacturers are still working to swing the pendulum toward direct sourcing vs. owned manufacturing, and private brand retailers are focused on maturing their operational efficiencies as they now act as suppliers to themselves.
- **Reducing lead times for new products** — We were a bit surprised that this wasn't the most important initiative across the board (it is No. 1 for specialty apparel companies) given how much attention is being given to "fast fashion" and the fickle consumer. In a survey with the National Retail Federation (NRF), we found that apparel and footwear lead times average 11 months from concept to store. Many companies are looking

< $100M $100-499M $500M+

to significantly reduce this time, with goals being measured in weeks rather than months. Specialty apparel companies that own the retail and supply see speed to market as a competitive necessity to deliver fresh and on-trend product assortments. This is especially important because companies such as H&M, Uniqlo and Topshop are resetting consumer expectations for new product deliveries.

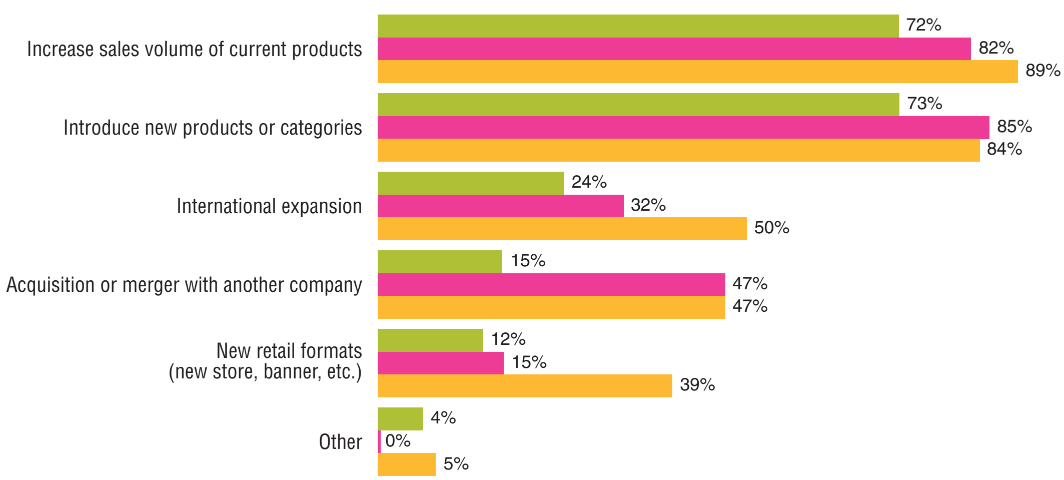
- **Business intelligence and analytical capabilities** — Most of the existing operational, transactional or ERP systems in place today do not provide great support for analysis (or reporting for that matter). Across retail we're seeing companies look to infuse science and analysis to better understand their business — looking beyond just channel-level sales data to understand how product, store, promotion and consumer attributes are impacting the success of the assortment. Companies should pay particular attention to the link between their ability to conduct analysis and the need to act on that insight. The industry needs to push software vendors to provide solutions that bridge the gap between insight and execution.

We were also somewhat surprised that supply chain agility and supply chain visibility were not ranked higher as problematic issues given the number of discussions we have with apparel companies about these challenges. By most accounts, companies are trying to solve these problems as they look to reduce lead times and drive costs out of the process. However, supply chain agility will often come at an operational cost, and this trade-off must be taken in the context of the overall business goal.

When asked to look forward, most companies said they plan to grow by increasing the volumes of their current product mix. (See Chart 2.) Product or brand extensions were also seen as a key vehicle for growing the business. Perhaps the most interesting number is the 31 percent looking to international expansion as a growth opportunity. Not content to let European and Asian brands steal share in the U.S. market, companies across the board are looking to enter or expand their global presence. Many companies are identifying ways to take their existing formats and enter new markets in a low-risk approach called "in a box," where a pre-defined set of processes and systems are deployed in each new market.

CHART 2 — How companies plan to support future growth goals

N=192 apparel retailers/manufacturers



IT spending

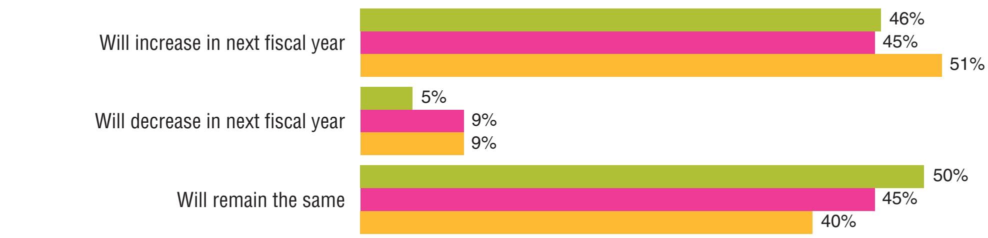
Our inaugural *Apparel* and AMR survey found that almost half of apparel companies plan to increase their IT spend in 2007, while only 6 percent are planning a decrease. For those planning to increase, we see a healthy 9 percent bump for 2007. (See Chart 3.)

This increase in spending reflects IT's increasing role in supporting the business objectives, and as we'll see later in the report, the need to update many legacy packages and custom applications with newer functionality.

< $100M　$100-499M　$500M+

CHART 3 — IT budget change in next fiscal year

N=192 apparel retailers/manufacturers



We'll also see that many organizations are realizing that Excel and other desktop software won't support the business goals or resolve many of the operational challenges mentioned earlier.

The good news for the IT department (and the software vendor community) is that 92 percent of companies surveyed agreed that business leaders view IT as a strategic enabler to achieving their operational goals. This point is reinforced by the fact that 85 percent of respondents to the survey were either corporate management or line-of-business owners, providing a real window into the mind of the business.

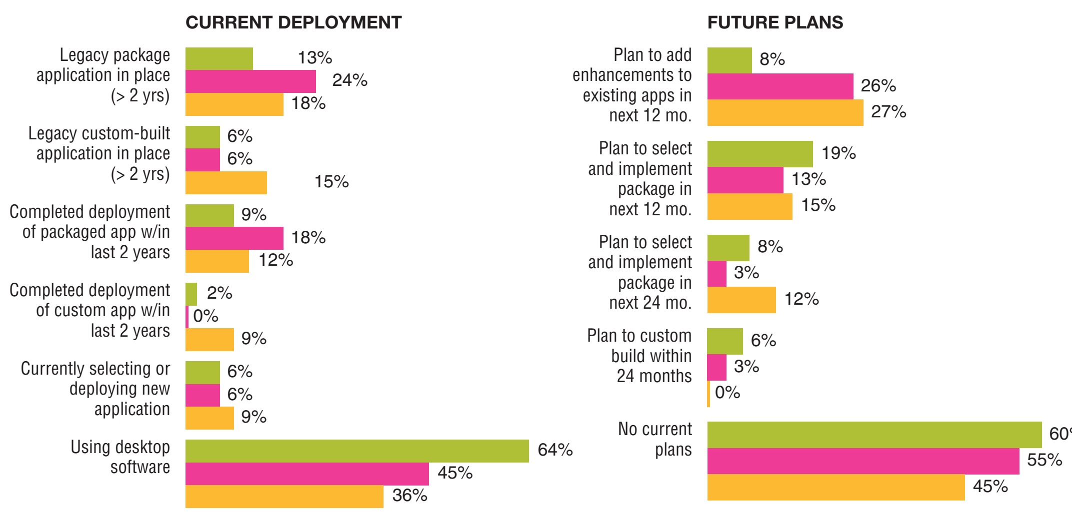
Tying back to the point that total IT spend tends to lag in our industry, smaller companies indicated that budget constraints are the primary barrier to deploying IT solutions in their organization. As we look at the mid-sized and large companies, the capabilities of the packages and internal resources and skills become the primary hurdles. Very few package implementations today are delivered exclusively with out-of-the-box functionality. In fact, many packages are starting to emphasize the ease with which they can be configured to address unique data and process requirements for each account. The tradeoff in configuration is the strain on internal resources to provide the domain content to support configurations. The market is indicating that configurable solutions are good, but out-of-the-box alignment to business requirements is still critical. Configurability should not come at the price of implementation time (and cost) or deep functional support.

New product development a priority

Product development and sourcing are the areas where most apparel companies indicated they will invest during the next 24 months (see Charts 4-6). This comes as little surprise given the top operational initiatives

CHART 4 – Nature of systems deployment & future plans – Product Design

N=192 apparel retailers/manufacturers



< $100M $100-499M $500M+

CHART 5 – Nature of systems deployment & future plans – Product Development

N=192 apparel retailers/manufacturers

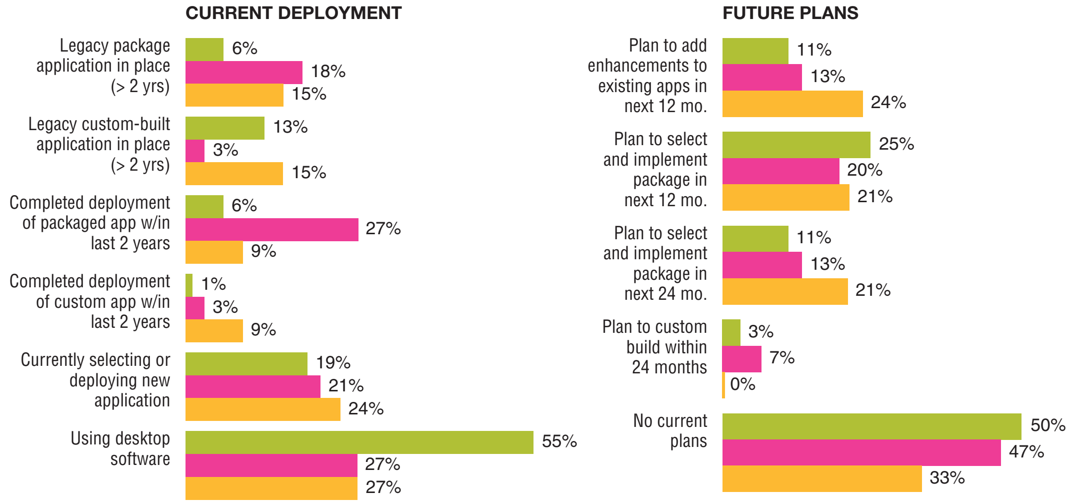
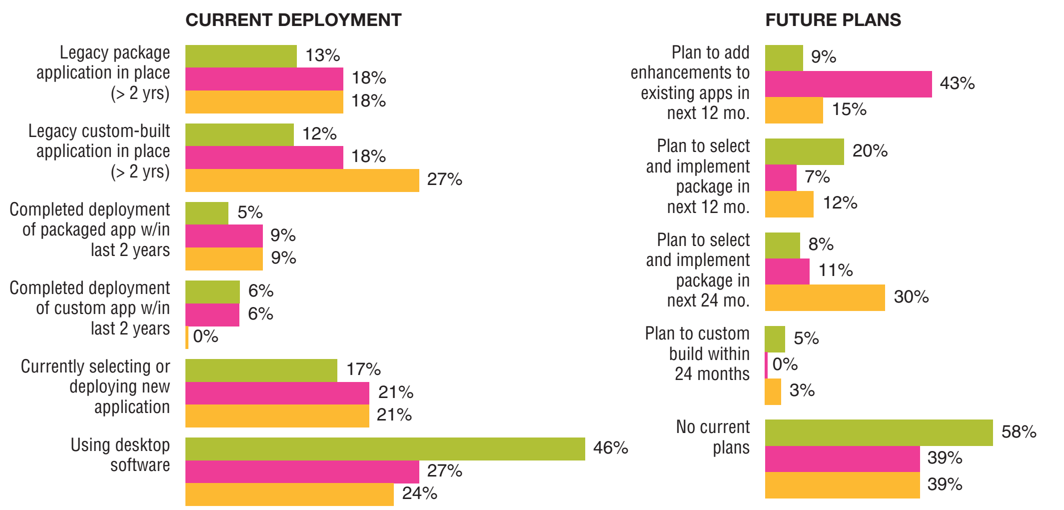


CHART 6 – Nature of systems deployment & future plans – Sourcing

N=192 apparel retailers/manufacturers



that were called out by survey respondents. It is alarming, however, that only a third of all companies are actively exploring solutions in these areas (34 percent in product development and 30 percent in sourcing).

Across the board, apparel companies want to bring their new product introduction processes and data into better control as they strive to reduce lead times and cut costs out of the product. This becomes increasingly difficult using Excel and desktop software, which has traditionally ruled the spec creation process, especially when we focus on the smaller companies. Large apparel organizations are disproportionately looking to invest in new software to support the development process given the complexity of managing multiple divisions, brands and product categories.

Product lifecycle management (PLM) has probably been the single hottest technology area in the apparel industry for the past 18 months. As organizations have focused on getting their arms around all of their mate-

■ < $100M ■ $100-499M ■ $500M+

rial and product data, and gaining visibility to the status of different development activities, they are increasingly looking to PLM vendors for support.

In addition to core product data management (PDM) capabilities that support the creation of a bill of materials and product specification package, PLM solutions can provide additional functionality for line planning, collaborative design and workflow and calendar management.

Some PLM vendors have delivered similar functionality in other manufacturing industries, but only recently brought their applications to the apparel vertical. These applications were already very strong in supporting workflow and event management, and have increased their apparel-specific functionality in the past few years. Other PLM vendors already offered apparel-specific applications, such as PDM, and have built additional modules to support the expanded scope of PLM.

Sourcing applications also have gained traction in recent years as more and more product is direct sourced. These applications typically support product costing, capacity planning, vendor allocations, customs and import management, landed cost and invoice reconciliation and vendor management. They usually send order information to the purchase order system.

As companies look to reduce costs and improve their cycle times, the link between product development and sourcing gets tighter and tighter. In fact, the line between these two sets of applications is blurring as traditional sourcing vendors begin to provide more upstream development process support, and PLM vendors add functionality for costing and vendor management to their applications. We may see a time in the not-too-distant future where we don't talk about these solutions as two separate applications, but for now they are each helping apparel companies meet significant business objectives.

Taking the speed and visibility story a step further, approximately three-quarters of mid- and large-sized companies plan to invest in some form of supply chain collaboration tools (see Charts 7-8). Apparel companies are looking to share information up and down the supply chain — from retail all the way back to the manufacturers (and raw materials suppliers in some cases) — for product planning, capacity planning and cost reduction. Smaller manufacturers are still struggling to gain greater visibility to timely retail POS data, and this makes sales and operations planning much more difficult for them. The largest retailers and branded suppliers have well-established communication links for POS data (i.e. EDI) and are focusing their current efforts on getting deeper into the supply chain.

CHART 7 – Nature of systems deployment & future plans – Supply Chain Collaboration

N=192 apparel retailers/manufacturers

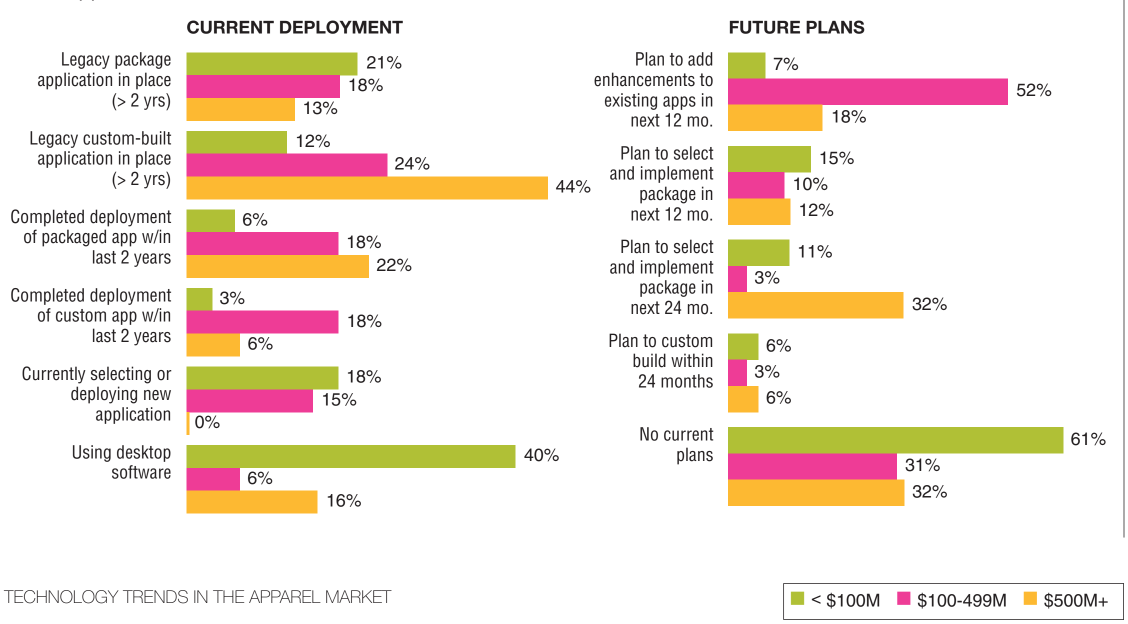
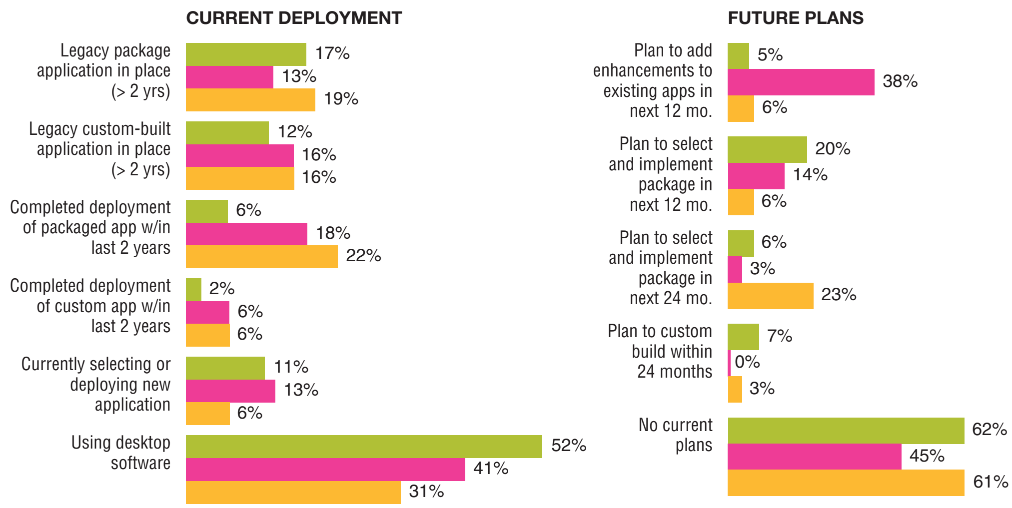


CHART 8 – Nature of systems deployment & future plans – Customs/Logistics

N=192 apparel retailers/manufacturers



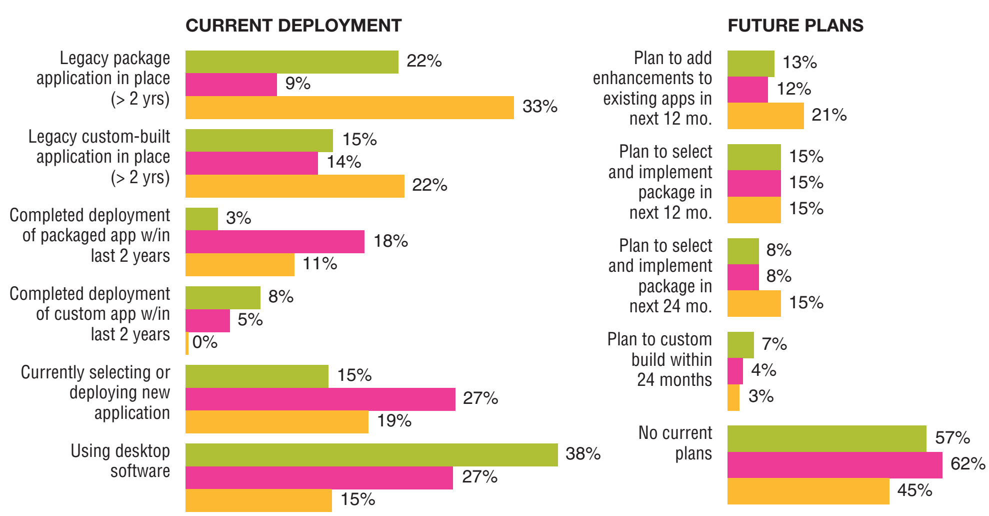
Retail technology investment

In the retail arena, apparel companies are looking for more ways to reach the consumer and hoping to keep a larger percentage of the markup in the product. Investments in e-commerce platforms ranked as the most popular retail initiative for apparel companies during the next two years, with 35 percent of all companies planning to implement new solutions in the next 24 months (see Chart 9).

Following the need to create additional retail channels in a shrinking department store world, apparel suppliers are going beyond using their web sites as branding and marketing vehicles and are adding e-commerce capabilities to sell direct to the consumer. Retailers are also beefing up their own web presences in an effort to capitalize on the cross-channel shopper.

CHART 9 – Nature of systems deployment & future plans – E-commerce

N=192 apparel retailers/manufacturers



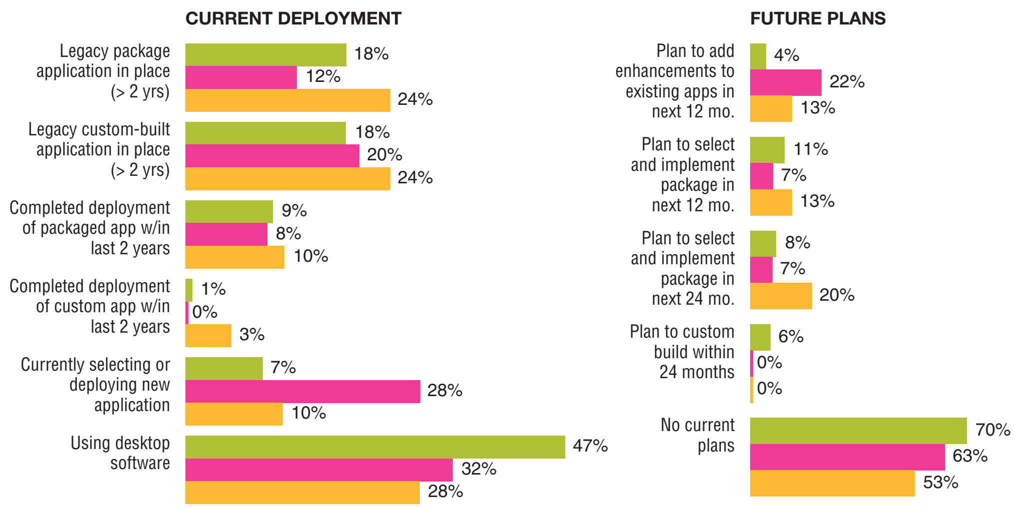
< $100M $100-499M $500M+

Now that the web channel is climbing into double digits as a percent of revenue, retailers are looking for ways to capitalize on it even further. While catalogs have often been used to extend the product assortment, the web provides a more dynamic and flexible (not to mention lower-cost) channel to accomplish this goal and can be used interactively in the store to extend the shopping experience. The web channel is also one of the few equalizers for the smaller brands.

Looking at the bigger picture of retail technology investment, pricing solutions are garnering new interest (22 percent of companies are looking to invest during the next two years), especially in the large company segment (where 33 percent are planning investments). See Chart 10. Historically, pricing tools in the apparel space were really limited to price management software, i.e. the execution system for managing price zones and price changes from the central merchant group out to the stores. With the advent of price optimization and specifically markdown optimization technology, retailers received a weapon in the battle against markdowns.

CHART 10 – Nature of systems deployment & future plans – Lifecycle Pricing

N=192 apparel retailers/manufacturers



Having received some mixed, but generally positive, reviews, price optimization applications provide an algorithmic approach to determining the timing and depth of markdowns for short lifecycle products based on historical sales patterns. In many cases pilots have shown that apparel retailers wait too long and go too deep on the first price break. It goes without saying that your pricing strategy, store operations considerations and customer expectations all play a significant role in determining if there is real benefit to be gained from price optimization software. Many companies are exploring the technology in an effort to more effectively clear end-of-season merchandise and free up open-to-buy dollars for full-price product.

Many retailers are planning to add capabilities in the merchandise and assortment planning arena (see Charts 11-12). These investments are driven by the increasing complexity of operating multi-store, multi-channel, multi-category businesses in a changing consumer environment.

As apparel retailers attempt to make better decisions in offering a localized product mix to their store assortments and store clusters, they require much more sophisticated planning and analytical tools. More advanced applications support reconciliation between financial plans and product plans. They also allow retailers to take a far more sophisticated approach in their planning, going well beyond traditional volume-group store clusters and taking into account attributes such as climate, store location, customer demographics, etc.

As merchandising and planning tools continue to evolve, apparel retailers should plan to combine their assortment and pricing decision processes, and require functionality for managing both in a single application.

< $100M $100-499M $500M+

CHART 11 – Nature of systems deployment & future plans – Merchandise/Assortment Planning

N=192 apparel retailers/manufacturers

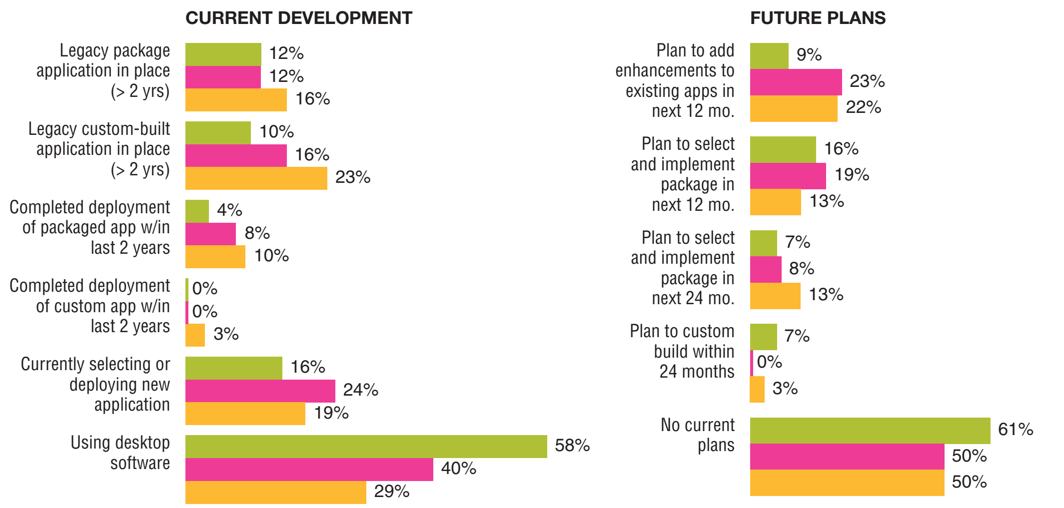
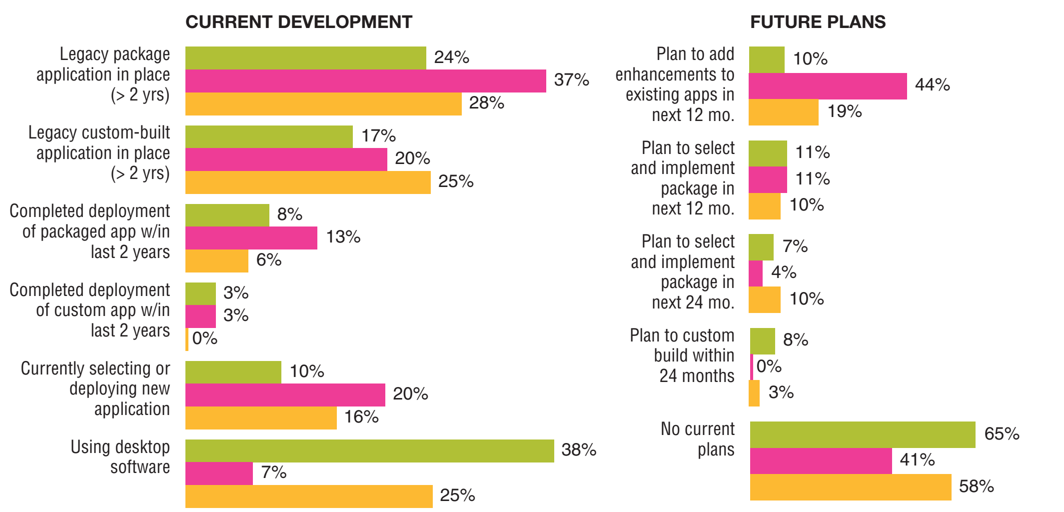


CHART 12 – Nature of systems deployment & future plans – Allocation/Replenishment

N=192 apparel retailers/manufacturers



RFID still on the sidelines

Adoption rates for RFID are still relatively low. Less than one in five apparel businesses is using RFID technology in any area of its operations today. And about half of the companies surveyed have no RFID plans at this time.

For those that are using RFID or will be exploring its use during the next year, we find an interesting mix of applications for the technology. For instance, there is RFID activity in the logistics, transportation and warehouse management categories. Much of this is related to carton- or pallet-level tracking to adhere to retail customer requirements or to increase operational efficiency and reduce touch points in the supply chain.

Surprisingly, smaller companies are the ones leading the way in the use of RFID in many areas and are far outpacing their mid- and large-sized peers. More than one quarter of small-sized companies are using or imple-

< \$100M \$100-499M \$500M+

menting RFID to track manufacturing activities compared with just 6 percent of mid-sized firms and 16 percent of large companies.

Based on the still high cost of item-level (let alone component-level) tagging, we can likely tie this result to the use of RFID in limited pilots and/or its use in high-ticket/high-fraud luxury brand companies. About a quarter of the $100M+ companies will be exploring the potential for manufacturing tracking, but until the item-level tag costs get down closer to 1 cent to 2 cents, we don't expect to see a huge rush to this application of RFID.

Most uses of RFID outside of the supply chain are still quite immature and are often RFID technology provider-sponsored pilots. This is true across the retail landscape. There are limited examples of companies using RFID in the store — Marks & Spencer has tagged SKU-intensive products such as men's suits as a way to quickly determine if a customer's size is available on the rack. Some retailers are piloting the use of RFID on promotional displays to track compliance for in-store setup, floor location and use throughout the event. But for the most part, we still see the technology providers looking to justify a business case rather than the retailers seeking a competitive advantage.

ERP is gaining in retail

Enterprise applications have been widely adopted by most manufacturing industries to manage the data and processes of the back office and operational functions. Apparel manufacturers have followed suit in large numbers, adopting solutions from both apparel and non-apparel-specific IT vendors to run their core order management, transaction processing and production scheduling.

When asked about their enterprise application strategy, not surprisingly, about 40 percent of those who responded indicated that they were using an integrated suite from a single application provider for their core supply chain operations. Another 40 percent indicated that they are pursuing a best-of-breed strategy.

With the increasing percentage of product being direct sourced rather than manufactured in owned facilities, apparel companies have adopted packaged applications (as discussed earlier) to support product development and sourcing functions. These areas have not always been supported by the traditional ERP vendors, but many enterprise vendors are now focusing on filling these gaps. This is especially true among the large players such as SAP and Oracle, which are relatively new to the apparel industry but see it as a significant growth opportunity. Expect to see more vendor consolidation and acquisitions in these areas.

On the other hand, the concept of enterprise applications or ERP in the retail space is a relatively new scenario. Retailers have traditionally lagged other industries in the adoption of packaged software, but as many are looking to migrate off of legacy mainframe or custom-built solutions, they are taking a significant interest in the ERP vendors. While close to a third of apparel retailers (almost two-thirds among mid- to large-sized retailers) are pursuing a best-of-breed technology approach today, we see a trend toward the single-vendor solution and a higher percentage of firms likely will pursue that in the coming years.

While there are a variety of definitions for what a retail ERP application supports, most retailers shared similar perspectives on the functions that they expected an ERP application to cover. The surprising outcome was the lower expectation for support of back-office (financials and HR) functionality, indicating either that retailers aren't looking to replace their existing applications in these areas or they don't see the current back-office vendors as contenders in the retail space.

One factor that we believe will continue to stunt the adoption of single-vendor ERP in the apparel industry is the lack of integration between retail and wholesale (manufacturing) applications. As more and more apparel companies become vertical — especially as the brands open their own retail channels — they need to cover the retail and supply sides of their operations from an IT perspective. Many have indicated that they would like to do so with a single vendor, but have found this to be a gap common to the vendor community at large. Many vendors support both sides, but have not built a compelling integration story to break down that wall that exists between the applications. This is keeping many companies on the best-of-breed path for the time being.

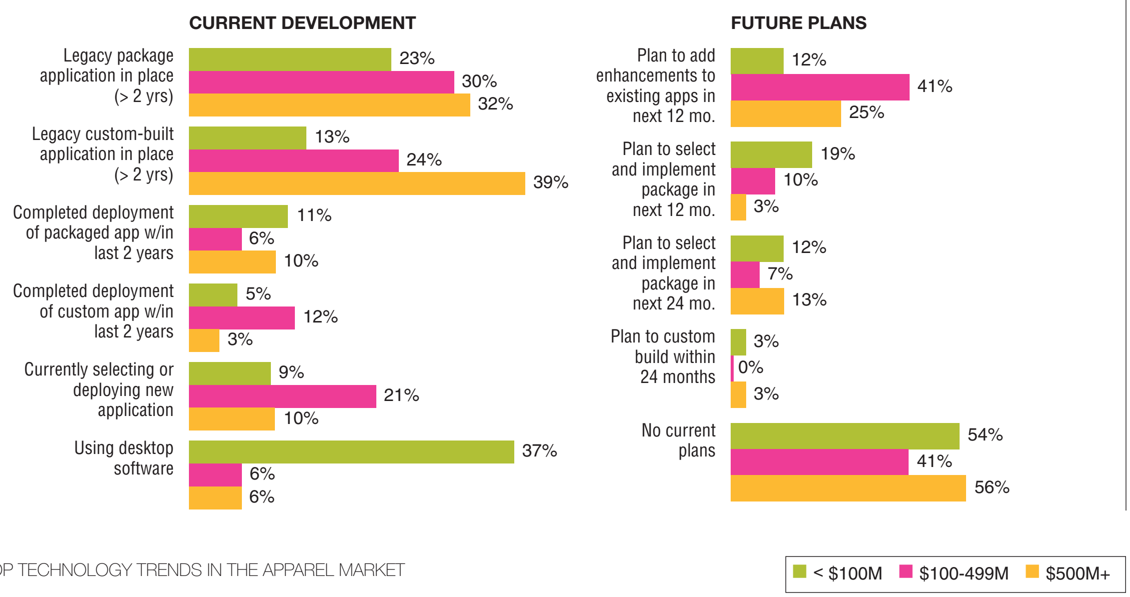
Conclusions

This survey has provided a number of insights into the current state and near-term plans for technology investments across the apparel industry. A few key points stand out as we take a last look at the data:

- **Microsoft is alive and well** —Desktop software is still a mainstay in the apparel marketplace. Across every category of functionality, no fewer than 25 percent of the respondents were using some form of client-based desktop software to support the business function, with the smallest companies leading the pack as we might expect. Unfortunately, with these companies also reporting that a lack of funding was the No. 1 reason they don't adopt technology solutions, we're not likely to see a significant shift here in the next year or two. An increasingly complex and competitive market will (and should) drive those organizations that can fit initiatives into their budget to migrate to packaged applications. Financially constrained organizations should prioritize across the enterprise and cherry pick a solution or two that will provide some advantage or reduce some particular pain area as a way to begin making progress.
- **Deep pockets help** — Even as smaller companies look to increase their IT budgets by a significantly larger percentage than their large-sized cousins, they are still hampered by the proportionately high cost of package solutions. On the bright side, the software market for Tier 2 apparel players is maturing in the apparel sector, and mid-sized companies have solution options comparable to those of the big Tier 1 players, but at manageable licensing and ownership costs. But Tier 3 apparel companies remain underserved and thus face a catch 22 in trying to get off of desktop software.
- **Investment aligns to business goals, but approach varies by area** — Software and apparel business executives are positioning themselves to deliver technology solutions to address the most critical business needs. While simple in concept, the two don't always align, so the fact that we see such cohesion validates the perspective that IT plays a critical role as an enabler to the business. But not all IT vendors will get the same benefits. For example, many apparel companies are pursuing growth goals that require increased physical product flow efficiencies, and WMS plays a big role (see Chart 13). Yet most of them are looking to enhance existing applications rather than rip and replace (the exception here being the smallest companies, which are likely looking to implement for the first time). This doesn't bode well for IT vendors for those types of systems. On the other hand, other apparel firms have goals for entering new categories and shortening cycle times, which will drive new investment in applications during the next two years. Vendors that support planning, particularly management of the product from the concept to ex-factory, should see strong interest in their applications.

CHART 13 – Nature of systems deployment & future plans – Warehouse Management Systems

N=192 apparel retailers/manufacturers



It will be very interesting to see how technology investment in the apparel marketplace unfolds this year, but without a doubt, those apparel retailers, brands and manufacturers that are successful in their IT endeavors will be better positioned to compete. ■

ABOUT THE AUTHOR

Michael Barrett - Research Director, Retail

Michael brings more than a decade of experience as a retailer and industry consultant to his role as a research director at AMR Research. Michael is responsible for researching merchandising and supply chain processes and technologies in such areas as product development, demand planning, inventory management and lifecycle pricing.

Prior to joining AMR Research, Michael was a senior manager in the retail consulting practice at Kurt Salmon Associates (KSA). In this position, he was responsible for delivering major business and software initiatives in the apparel, general merchandise and consumer products industries. Michael's primary focus has been on achieving business goals through technology enablement, and he has worked with organizations to define strategic initiatives, develop organizational structures and streamline processes. He has also implemented multiple large retail enterprise applications, and has worked globally with a number of leading apparel and retail organizations.

Michael began his career at the May Department Stores Co. managing merchandise planning, allocation, open-to-buy, replenishment and markdowns in the men's apparel and home goods divisions.

Michael earned his bachelor's degree in marketing from The Pennsylvania State University. He also holds an M.B.A. and an M.S. in management information systems, both from Boston University.

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