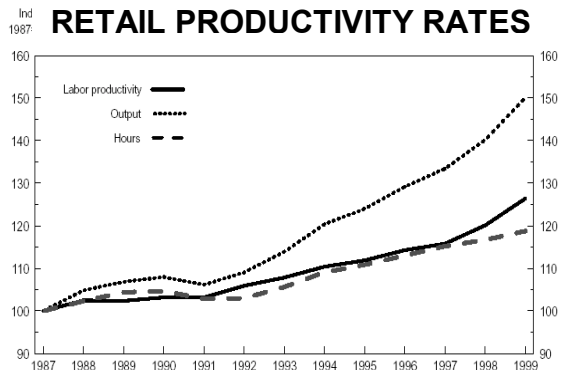


WAL-MART-IFICATION

This article examines how major retailers are shifting store-specific distribution obligations to their suppliers. In conclusion, this article examines how this trend represents both a threat and an opportunity for suppliers to major retailers.

U.S. productivity rates (the amount of output per hour worked) grew, from 1996 to 2000, at nearly double the rate as compared to the previous 20 years. Retail industry productivity rate growth in the 1990s was even higher.

Many factors contributed to retail industry productivity rate increases, including the increased use of computers, a better-educated workforce and the combined market forces of high demand and fierce competition. A major contributing factor, however, has clearly been the dramatic efficiency increases in the retail supply chain. Wal-Mart has pioneered many such improvements, and continues to raise the bar for all retailers, but most major retailers have either followed Wal-Mart, improving supply chain efficiency, or have faltered and gone the way of Ames, Bradlees and Kmart¹.



RETAILERS HAVE LOWERED THE COSTS OF THEIR DISTRIBUTION

The economics of the retail industry are well understood. Some of the major costs for retailers are related to labor, inventory, real estate and freight/shipping:

- **LABOR.** The more “handling” required for each unit of merchandise, the higher the costs of labor. The costs of labor at DCs can be lower than stores because of economies of scale and productivity gains of specialized labor and automation².
- **INVENTORY.** Higher inventory turns require less capital. In addition, if items of particular merchandise go unsold at retail prices on store shelves and are then sold at less-than-retail (a “**Markdown**”), the retailer’s bottom line is directly impacted.
- **REAL ESTATE.** The less merchandise stored in stores and in distribution centers (“**DCs**” or a “**DC**”), the lower the costs of real estate. Real estate costs at store locations tend to be higher than at DCs.
- **FREIGHT/SHIPPING.** The costs of different freight/shipping methods vary dramatically and are a large enough component of the supply chain that retailers have adapted practices specifically to lower freight/shipping costs.

Major Costs for Retailers:

- Labor
- Inventory
- Real Estate
- Freight/Shipping

Successful retailers, therefore, are engaged in a never-ending battle to reduce the impact of such costs to their bottom line. The winners, such as Wal-Mart and Target, have implemented productivity-enhancing technologies and established supplier management practices that have, without a doubt, squeezed significant costs out of the supply chain altogether. Fighting this battle has been an engine of productivity growth for the retail industry, and these supply chain improvements are creating ripple effects throughout the global supply chain for all industries.

DCs LOWER RETAILERS' COSTS

Very small retailers typically receive and hold inventory at stores, ordering merchandise from suppliers as inventory depletes.

As retailers grow in size and become more sophisticated, they often receive inventory at their DCs in bulk. That inventory is often broken down into smaller quantities and shipped to stores to fulfill the specific quantities and items that each store needs to replenish sold inventory (such distributions are fulfilling “Store-Specific” orders). Picking, packing and shipping merchandise from a DC to stores on Store-Specific basis is labor intensive, because bulk cases received from suppliers must be “split open” and picked and packed in small quantities.

The costs of DCs, including the labor costs of picking, packing and shipping on a Store-Specific basis, are justified because the alternative - receiving inventory in bulk at each store – would generally result in much higher freight/shipping, store labor and store real estate costs. In addition, major retailers have used DCs and Store-Specific distribution to reduce the costs of Markdowns.

SUCCESSFUL RETAILERS HAVE SUCCESSFULLY AUTOMATED DCs

Retailers have automated their DCs with technology that dramatically lowers their costs of distribution:

- **Labor Costs.** Automation in DCs has increased labor productivity and therefore reduced the costs of labor.
- **Inventory.** Automation has increased the accuracy of distribution by reducing mistakes in picking, packing and shipping merchandise, thereby increasing the likelihood that stores will get exactly the inventory required. This reduces inventory required in stores and diminishes the costs of Markdowns. In addition, automation enables faster order turnarounds, further reducing the need for inventory in stores and DCs.
- **Real Estate.** Faster and more accurate distribution reduces the amount of real estate required at stores and DCs.

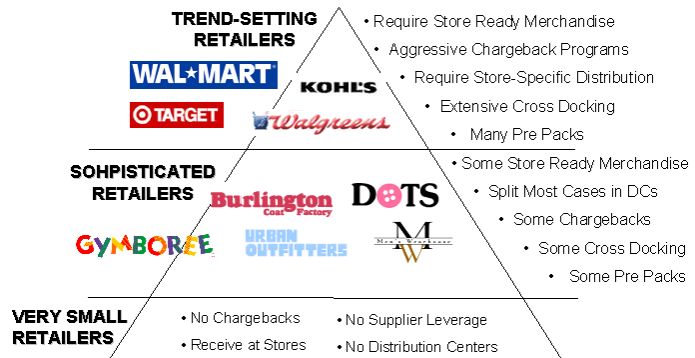
“Light-directed packing technology dramatically increased our productivity and accuracy, resulting in reduced labor - both DC and store - and real estate costs.”

**Ken McKinney, Director of Distribution,
Urban Outfitters**

Although Wal-Mart and its trend-setting peers (such as Kohl’s, Target, Lowe’s and Walgreen’s) pioneered DC automation, most sophisticated retailers (including medium-sized retailers such as Gymboree, Urban Outfitters, Burlington Coat Factory, DOTS, The Men’s Wearhouse and others) have implemented automated systems that enable DCs to efficiently distribute on a Store-Specific basis. The widespread automation of retailer DCs in the 1990’s has created an environment in which retailers of any meaningful scale generally have had to implement modern automation technologies to remain competitive.

RETAILERS ARE MANAGING SUPPLIERS TO SQUEEZE THE SUPPLY CHAIN EVEN FURTHER

Even as retailers were successfully automating their DCs in the 1990's, the majority of suppliers of merchandise to retailers continued to manually fulfill orders on a bulk basis. Retailers have now begun, however, to squeeze additional costs from the supply chain by focusing on suppliers. Retailers now often impose requirements on suppliers that reduce the amount of time, storage and handling required in the retailer's DCs and stores.



- **Accuracy.** Inventory received by retailers in the wrong quantities and in the wrong items increases labor costs and Markdown costs for retailers. Most retailers charge penalties to their suppliers (“Chargebacks”) for inaccurately distributed merchandise. Chargebacks have become industry-standard and can be exorbitantly expensive, decimating margins for suppliers that fail to distribute accurately.
- **Store Ready.** Major retailers often require suppliers to distribute merchandise ready to be displayed on store shelves (“Store Ready”), reducing the labor required by retailers at DCs and stores. Examples of Store Ready merchandise requirements include distributing items with price tags, bar codes, security devices and other packaging already affixed/included.
- **Pre Packs.** Retailers sometimes require that a supplier distribute merchandise in bunches (“Pre Packs”) that are anticipated to be required in many stores (such as 4 blue shirts and 3 red shirts). Pre Packs enable retailers to increase DC productivity rates because each pick of a Pre Pack actually picks several units of merchandise. In addition, when Pre Pack quantities equal what stores need for replenishment, fewer cases need to be split open. Instead, cartons travel through the retailer's DC on conveyor without being handling or stored (“Cross Docking”), which lowers costs of labor, real estate and inventory.
- **Store-Specific Distribution.** The largest and most sophisticated retailers are now requiring suppliers to pick, pack and ship orders on a Store-Specific basis, either shipping merchandise directly to stores (bypassing the retailer's DC altogether) or shipping to DCs (where the merchandise can be Cross Docked and then shipped to stores). Merchandise that is distributed from suppliers on a Store-Specific basis requires significantly less handling labor by retailers, lowers freight/shipping costs, reduces inventory and lowers real estate costs for retailers. In fact, the entire supply chain is made more efficient because merchandise distributed on a Store-Specific basis requires less handling altogether.

“Retailers continue to lower prices by squeezing supply chain costs. Store ready merchandise and store-specific distribution has already been adopted by the leaders and is being followed by retailers that intend to compete.”
 Gilbert Harrison, Chairman, Financo

Although all four requirements described above impose meaningful burdens on suppliers, none require as great a degree of change as the requirement to distribute merchandise on a Store-Specific basis. Requiring Store-Specific distribution from suppliers is providing retailers with tremendous savings, but it is also forcing suppliers to adopt new and complex business practices.

HOW SUPPLIERS ARE ADAPTING TO STORE-SPECIFIC DISTRIBUTION

It is well established that the retailers that successfully lowered costs, increased accuracy and reduced order turnaround time by automating DCs in the 1990's left behind the non-automators. Many analysts observe that Wal-Mart beat Kmart by continuing to lower prices, while maintaining margins, with a cost-advantage created by supply chain automation³. With that battle behind them, the winning retailers are now attempting to distance themselves from the pack by further lowering distribution costs by shifting Store-Specific distribution obligations to suppliers.

“For retailers and their suppliers to stay competitive, they must invest in the improvement of information execution systems and the physical movement of goods through the supply chain.”

Patrick Sedlak, VP, Sedlak Management Consultants

Having to pick, pack and ship to Store-Specific orders for the first time, many suppliers are now standing at the same crossroads that retailers have faced for the past fifteen years. How they adapt to the new requirements will largely determine which suppliers thrive, and which falter, in today's highly demanding retail supply chain.

SUPPLIERS HAVE TRADITIONALLY USED MANUAL, PAPER-BASED SYSTEMS

Similar to most retailers twenty years ago, many suppliers manually fulfill orders on a bulk basis and are not equipped with appropriate technology or business practices for Store-Specific distribution. Manually splitting cases to Store-Specific orders, with paper-based systems, is a labor-intensive and error-prone exercise; it requires massive amounts of labor and often cannot turn orders quickly enough. In addition, the high errors rates of manual processes inevitably subject suppliers to significant Chargebacks. Although Chargebacks can sometimes be avoided by auditing orders prior to shipping (if turnaround times allow), such audit steps increase labor costs even further. Suppliers using such manual processes, therefore, are experiencing low margins that are being driven further down by the need for additional labor, and by either the imposition of Chargebacks or the high costs of adding more labor to audit orders to prevent Chargebacks. Similar to retailers in the 1990's, some suppliers are automating to address these problems and some are not.

BULK DISTRIBUTION VERSUS STORE-SPECIFIC DISTRIBUTION FOR SUPPLIERS

Satisfying requirements under the two models of distribution (Bulk and Store-Specific)⁴ requires different approaches and practices from suppliers that wish to succeed:

- BULK DISTRIBUTION.** In this model, the supplier ships merchandise to the retailer's DC in bulk. The retailer then splits the cases and picks and packs to

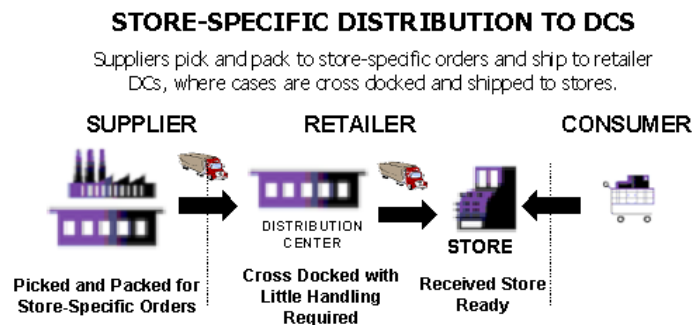


Store-Specific orders for shipping to stores.

- **Retailers use Handling Automation.** Sophisticated retailers employ automation⁵ to increase handling productivity, lower costs and gain/preserve a competitive edge. Others, such as Kmart, lost market share and suffered because they did not sufficiently and quickly react to these pressures.
- **Most Common Model.** Shipping in bulk to retailer DCs remains the most common model of distribution among retailers (except for very small and very sophisticated retailers), but many retailers are furiously developing systems and practices to reduce the amount of merchandise distributed in this fashion.
- **Relatively Easy on Suppliers.** Although suppliers are usually subject to Chargebacks for errors, most suppliers distributing on a bulk basis can profitably comply with such requirements with manual, paper-based systems.

- **STORE-SPECIFIC DISTRIBUTION.** The trend-setting retailers, particularly Wal-Mart, are requiring, to greater and greater degrees, that suppliers distribute on a Store-Specific basis.

- There are two variations of Store-Specific Distribution:
 - **Store-Specific Distribution to DCs.** Merchandise is Cross Docked at the retailer's DCs and shipped to stores.
 - **Store-Specific Distribution to Stores.** Merchandise is shipped directly to the retailers' stores, skipping the DC altogether.



Both variations dramatically lower the costs of labor, real estate and inventory for retailers⁶.

- **Eroding Margins for Suppliers without DC Automation.** Suppliers that attempt to fulfill Store-Specific distribution orders with manual, paper-based systems, tend to see margins erode due to Chargebacks, audit labor and handling labor costs.
 - **Men's Accessories to Major Retailer.** A supplier of men's accessories manually picks, packs and ships neckties to major retailers on a Store-Specific basis and is struggling with accuracy and delivery time. Because of problems with the costs of overtime labor, low accuracy and low account satisfaction, Store-Specific distribution is a major, margin-lowering problem for this supplier.
 - **Manicured Products to Major Retailers.** Similarly, a supplier to major retailers of manicured products manually picks, packs and ships Store-Specific orders. This supplier has been able to ship on time and accurately by using large teams of people and working overtime. Although account satisfaction and error rates are

sufficient, the dramatically high costs of handling and audit labor have reduced profit margins for this supplier.

This trend represents a major threat to suppliers that do not follow the automated picking, packing and shipping practices established by retailers in their DCs in the 1990's for Store-Specific distribution.

- **Increasing Profits for Automated Suppliers.** Other suppliers have followed the leads of retailers in implementing automation to fulfill Store-Specific orders.
 - **SaraMax.** SaraMax, a supplier of apparel to major retailers, uses the same automated technologies that sophisticated retailers use to quickly, efficiently and productively pick, pack and ship merchandise on a Store-Specific basis (to DCs). Able to fulfill orders with minimum amounts of labor, on time and accurately (with almost zero Chargebacks), SaraMax is maintaining profit margins, increasing market share and navigating the Store-Specific distribution trend as an opportunity.
 - **Electronic Arts.** EA, a supplier of video games to major retailers, uses automated systems to quickly, efficiently and productively pick, pack and ship merchandise to major retailers on a Store-Specific basis (to stores). With low labor costs and highly accurate shipments, EA is satisfying its customers, maintaining profit margins and keeping distribution costs low even as sales volumes increase.

Because the practices and technologies of Store-Specific picking, packing and shipping have been market-proven for more than a decade, suppliers are experiencing little adoption risk and are finding that the automated systems can often be paid for out of labor cost savings.

- **Becoming More Deeply Penetrated.** Bringing major suppliers into the Store-Specific distribution programs has been a success for major retailers, who are reducing costs and gaining competitive advantages with a more efficient supply chain. The success of retailers with Store-Specific distribution, combined with the fact that suppliers that have adapted well to Store-Specific distribution are thriving, makes it extremely likely that this trend will continue to gather momentum and penetrate more deeply.

CONCLUSION

The Store-Specific distribution trend for suppliers is gathering momentum and is a double-edged sword. The suppliers that do it well benefit, increasing market share and maintaining profit margins⁷. The suppliers that do it poorly, however, have seen margins tumble and are losing market share. In the 1990's, some retailers capitalized on better practices and distribution automation trends while others did not. Similarly, in the next several years some suppliers will adapt to Store-Specific distribution by implementing market-proven technology and practices to lower costs, maintain margins, satisfy customers and increase market share. Some suppliers will not. In other words, some suppliers will become the "Targets, Kohl's and Wal-Marts" of DC efficiency and others will become the "Kmart, Bradlees and Ames".

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About the Author:

Paul Lightfoot is the CEO of AL Systems, which provides clients with integrated solutions that improve the flow of merchandise through distribution facilities. Companies mentioned above that are clients of AL Systems include Urban Outfitters, Gymboree, DOTS, SaraMax, Burlington Coat Factory, The Men's Wearhouse, Kohl's and Target. Paul and his team help retailers, and suppliers to retailers, reduce their costs, increase productivity and improve profitability. Paul Lives in New York City with his wife Karen. To contact Paul or AL Systems, please call 973.586.8500 or email plightfoot@alsysinc.com or info@alsysinc.com.

¹ Information Week, Now In Bankruptcy, Kmart Struggled With Supply Chain, Jan. 28, 2002 (<http://www.informationweek.com/story/IWK20020125S0020>). This article describes, among other things, the degree to which Kmart's inability to master supply-chain technology hastened its demise, and how the company failed to successfully compete with Wal-Mart in supplier relations. See also <http://www.computerworld.com/industrytopics/retail/story/0.10801.67740.00.html>.

² Although the term "automation" can have several broad meanings, in this article it is used to describe information management and order execution systems that improve efficiency, productivity and accuracy in distribution centers. Examples of technologies that would constitute "automation" in this context are piece sortation systems, powered conveyor systems, paperless picking, packing and putting systems, Warehouse Management systems and in-motion manifesting systems.

³ One indication of how well automation has improved the respective supply chains is that Target turns its inventory 6.3 times a year; Wal-Mart 7.3 times a year; and Kmart, just 3.6 times. <http://www.baselinemag.com/article2/0.3959.37385.00.asp>

⁴ Note that this illustration does not describe direct-to-consumer models, such as catalog and Internet distribution. In those cases, the retailer generally ships directly to consumers from retailer DCs (skipping stores). Although this generally requires sophisticated automation on the part of the retailer, it is not directly related to the trends in this article, which are related to distributing merchandise to stores.

⁵ Contact the author (plightfoot@alsysinc.com or 973.586.8500, x213) for more information about how these retailers utilize technology to lower their costs, increase profits and remain competitive on a price basis.

⁶ Store-Specific Distribution to DCs results in lower freight/shipping costs than Store-Specific Distribution to Stores, but Store-Specific Distribution to Stores enables faster turnaround times and lowers costs of real estate and DC labor.

⁷ In fact, although many people in the merchandise supply industry regularly disparage Wal-Mart, the suppliers that efficiently and accurately supply to Wal-Mart and its peers have enviably predictable and profitable businesses. See http://www.producer.com/articles/20020919/farm_living/20020919fl03.html. Wal-Mart also towered as the "best retailer with which to do business" in a Cannondale Associates survey of 122 manufacturers. "I think most would say that Wal-Mart is their most profitable account," said one supplier in the survey. See <http://www.fortune.com/fortune/mostadmired/articles/0.15114.423053-2.00.html>.