AberdeenGroup

The Business Benefits of Advanced Planning and Replenishment

A Benchmark Report

December 2005

Executive Summary

O ut-of-stocks, markdowns, and spoilage from excess inventory of perishable items plague retailers around the world, regardless of segment and size. The cost of lost sales, dissatisfied customers, and inaccurate inventory forecasts can bring even the seemingly best-run retailer to its knees.

Throughout the autumn of 2005, in an effort to understand retailers' perception of the gravity of the situation and to understand technology-enabled solutions they employ to solve it, Aberdeen conducted a primary research study with more than 60 retail participants from around the world.

Key Business Value Findings

While most retailers recognize that there are significant differences between the variety of advanced planning and replenishment offerings, a significant plurality believe that some tweaking of results will be always necessary, regardless of the quality of the math. However, more retailers than ever, most notably in North America and EMEA, recognize that the best advanced planning and replenishment applications can solve a baseline problem without tweaking, even as they uncover other issues that were not previously visible. As one retailer noted, "The single biggest improvement to profitability has been the drastic reduction in forward cover through the implication of a sophisticated replenishment tool and the division of the planning and buying role, with improved processes and systems around planning."

He went on to say, "The challenge now that we running on lower forward covers is to maintain an acceptable level of in-stock. **Lower forward covers have highlighted other inefficiencies in the entire supply chain from poor supplier performance to increased pressure on our backdoors as we now receive more frequent deliveries with lower quantities**."

Implications & Analysis

There is little doubt that, given the pressures retailers face and the strategies they contemplate, the need has been recognized to move past spreadsheets as the tools of choice for advanced planning and replenishment operations. Within the next 24 months, over 80% of retailers surveyed will have implemented automated systems to support virtually all aspects of their planning, allocation, and replenishment operations.

Recommendations for Action

A key recommendation for all retailers is to avoid a proliferation of forecast engines. While each retailer will need its own portfolio of planning and replenishment applications, it is important to avoid having too many forecast engines, each creating a different sales plan from different assumptions. This will put the retailer back where it started from, without a single version of planning truth.

Retailers who are considered industry laggards will be best served by purchasing pre-packaged applications, rather than trying to build their own advanced planning and fore-

casting engines. These retailers must begin grouping their individual stores into clusters, and avoid "over-engineering" the store clusters they create. These retailers should also contemplate a shift from post-distribution of seasonal merchandise to a greater percentage of pre-distributed, floor-ready seasonal product.

Retailers at the norm must fully understand the detrimental effect an out-of-stock problem can have on their brand identities. These retailers, who most typically plan for their entire chains, should create clusters of stores for planning purposes. Finally, retailers at the norm should consider moving to a higher percentage of vendor managed inventory.

Best-in-class retailers must move to near real-time response to sales results and receipt patterns, and shift their forecast "tweaking" practices to an exception basis process only.

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Issue at Hand

O ut-of-stocks, markdowns, and spoilage from excess inventory of perishable items plague retailers around the world, regardless of segment and size. The cost of lost sales, dissatisfied customers, and inaccurate inventory forecasts can bring even the seemingly best-run retailer to its knees.

A History of Disappointment

In response to this problem, retailers have turned to the science of advanced planning, allocation, and replenishment systems to help them improve their in-stock positions. Unfortunately, in the past, these applications often performed far better in the conference room than they did in the real-world. And those that did perform were difficult to learn; the user interface and complex mathematical equations required constant tweaking and the results were often hard to decipher and understand. As one CIO described a vintage 1980s replenishment application; "It works fine as long as you have a PhD on staff to regularly tweak its assumptions."

Planning applications were the most likely applications to become shelfware in these environments. After the applause ended in the conference room, the IT department suffered the pains of populating the plans with sales, receipts, and inventory levels from prior years, and the users endured several months of training in using the applications, the life of the merchandise planner returned to normal. Spreadsheets controlled open-to-buy, and the planning software was occasionally used to review actual results against original forecasts, most often by the finance department.

Competitive Framework Key

The Aberdeen Competitive Framework defines enterprises as falling into one of the three following levels of practices and performance:

Laggards — practices that are significantly behind the average of the industry

Industry norm — practices that represent the average or norm

Best-in-class — practices that are the best currently being employed and significantly superior to the industry norm

Forty-four percent of retail respondents reported that their companies have been using advanced planning and replenishment systems for over one year, yet 33% of respondents reported at least "tweaking" the results these systems generate. A surprising 16% reported that they create their plans in spreadsheets and then import those plans into their "advanced" systems.

PACE Key — For more detailed description see Appendix A

Aberdeen applies a methodology to benchmark research that evaluates the business pressures, actions, capabilities, and enablers (PACE) that indicate corporate behavior in specific business processes. These terms are defined as follows:

Pressures — external forces that impact an organization's market position, competitiveness, or business operations

Actions — the strategic approaches that an organization takes in response to industry pressures

Capabilities — the business process competencies required to execute corporate strategy

Enablers — the key functionality of technology solutions required to support the organization's enabling business practices
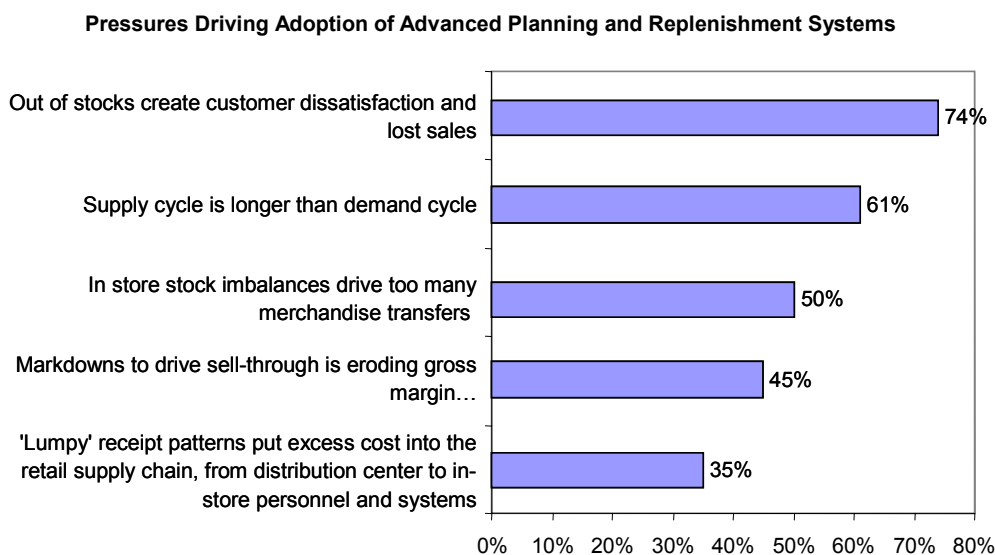
Aberdeen*Group* asked retailers to clarify their responses. Several said that while their planning and replenishment systems were "advanced", they were not advanced enough to satisfy their requirements and that user adjustments made for a better in stock position. Others reported creating their plans in a spreadsheet, and seeding their replenishment systems with that data. Still more found their applications difficult to use, with time to proficiency of up to two years!

Whatever else can be said, it is certain that retailer attempts to improve their in-stock positions using these techniques have been unsuccessful. Out-of-stock rates have remained relatively constant at approximately 8% over the past decade.

New Complications Emerge

The past decade has brought more complications to retailers' already murky stock equations. The explosion of imported merchandise has caused ever-longer supply cycles, coupled with ever-shortening consumer demand cycles. Products just don't remain interesting for as long as they used to. Figure 1 shows the relative importance of these and other critical pressures retailers are feeling.

Figure 1: Out-of-Stocks and Shrinking Demand Cycles Drive Change

Pressures Driving Adoption of Advanced Planning and Replenishment Systems

Pressure	Percentage
Out of stocks create customer dissatisfaction and lost sales	74%
Supply cycle is longer than demand cycle	61%
In store stock imbalances drive too many merchandise transfers	50%
Markdowns to drive sell-through is eroding gross margin…	45%
'Lumpy' receipt patterns put excess cost into the retail supply chain, from distribution center to in-store personnel and systems	35%

Source: Aberdeen*Group*, December 2005

Best-in-class Retailers and Application Vendors Respond

In response to these growing challenges, application vendors are trying to change the way advanced planning and replenishment processes are managed. For example, applications to calculate assortment, financial and merchandise plans have matured, and are now more user-friendly. Applications to drive SKU/store replenishment can now scale and effectively run those operations. Retailers are recognizing that applications once considered "advanced" are ready for replacement with more integrated, sophisticated offerings. Best-in-class retailers, defined as those that outperform their peers in year-over-year sales while improving or holding merchandise remain constant, are seeking new and improved solutions for planning and replenishment. **More than 20% of these best-in-class retailers stated their intentions to purchase advanced planning and replenishment systems over the next 12 months.**

The changing state of managing inventory within the retail industry demands that the bar be raised on merchandising performance, and the best are rising to the challenge.

Chapter Two:
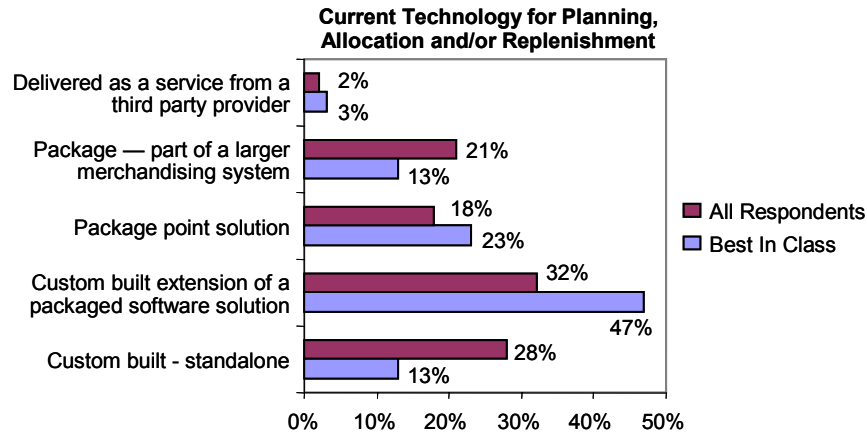## Key Business Value Findings

Key Takeaways

- Until now best-in-class retailers have used extensions to packaged software solutions to manage planning, allocation, and replenishment.

- Retailers believe their business processes are the greatest barrier to implementing advanced systems. North American retailers prefer to change those business processes themselves rather than seek assistance from system integrators.

- Merchants are, for the most part, ready to change, and a substantial percentage of the best-in-class are planning additional system purchases in the coming year.

Retail, in general, has historically been a "do-it-yourself" IT world. While it's facile to say this situation exists because of the retailers themselves – that they think their operations are too idiosyncratic to be managed by a packaged solution – the truth is rooted elsewhere. Historically, packaged applications were unable to accommodate the sheer volume of transactions retailers generate. Until the mid-80's there were *no* packaged merchandising transaction systems that would run on an IBM mainframe, the computer with the most horsepower of the day, and packages developed for minicomputers like the System 38 (predecessor to the AS400 and iSeries) were hampered by disk and processor scalability. Tier 1 retailers developed their own systems as a matter of necessity.

Certainly, thanks to Moore's Law (which predicted processing power increasing exponentially), and a lot of independent software vendor (ISV) application development, this is no longer the case. Yet the legacy of this earlier world remains. While retailers have moved to packaged solutions to run their merchandising *transactions* (e.g. purchase orders, sales processing, and stock ledger scorekeeping), overall, they remain challenged to move away from customized solutions to solve more targeted problems.

Figure 2 illustrates that best-in-class retailers have had the most success in planning and replenishment by creating custom extensions of packaged solutions. Purely custom-built solutions have generated inadequate results. Retail remains a best-of-breed world, and advanced planning and replenishment systems are a clear case in point.

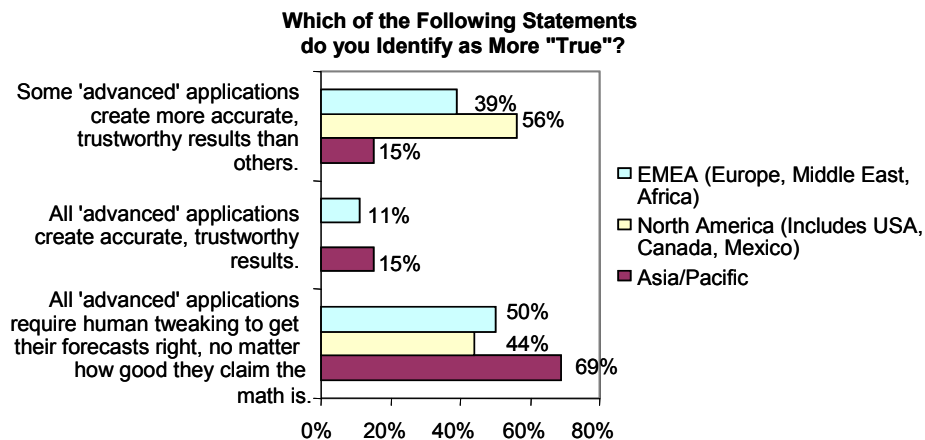**Figure 2: Extensions to Packaged Solutions Drive Best Results**

Current Technology for Planning, Allocation and/or Replenishment

Category	All Respondents	Best In Class
Delivered as a service from a third party provider	2%	3%
Package — part of a larger merchandising system	21%	13%
Package point solution	18%	23%
Custom built extension of a packaged software solution	32%	47%
Custom built - standalone	28%	13%

Source: Aberdeen*Group*, December 2005

Moving Beyond "Tweaking" to Business Value

While most retailers recognize that there are significant differences between the variety of advanced planning and replenishment offerings, a significant plurality believe that some tweaking of results will be always necessary, regardless of the quality of the math. Interestingly enough, as illustrated in Figure 3 below, there were significant geographic differences in the importance of tweaking the results generated by planning and replenishment applications, with over 65% of Asia/Pacific respondents expressing a need to hone system calculations.

Figure 3: The Need to Tweak Remains Strong

Which of the Following Statements do you Identify as More "True"?

Statement	EMEA (Europe, Middle East, Africa)	North America (Includes USA, Canada, Mexico)	Asia/Pacific
Some 'advanced' applications create more accurate, trustworthy results than others.	39%	56%	15%
All 'advanced' applications create accurate, trustworthy results.	11%		15%
All 'advanced' applications require human tweaking to get their forecasts right, no matter how good they claim the math is.	50%	44%	69%

Source: Aberdeen*Group*, December 2005

Retailers, most notably in North America and EMEA, do recognize that not all advanced planning and replenishment applications are created equal. The usage of these applica-

tions has solved a baseline problem while uncovering other issues that were not previously visible. As one retailer noted, "The single biggest improvement to profitability has been the drastic reduction in forward cover through the implementation of a sophisticated replenishment tool and the division of the planning and buying role, with improved processes and systems around planning.

The same executive commented that "the challenge, now that we are running on lower forward covers is to maintain an acceptable level of in-stock. **Lower forward covers have highlighted other inefficiencies in the entire supply chain from poor supplier performance to increased pressure on our backdoors as we now receive more frequent deliveries with lower quantities**."

Challenges and Responses

Given retailers' mixed emotions around planning and replenishment technology in general, it wasn't surprising to discover that the greatest challenge they face when implementing these applications was business processes that don't lend themselves to using them (Table 1). Equally unsurprising was retailers' number one response to that challenge, which was to redefine those existing business processes. Best-in-class retailers were even more concerned about application expense than their peers, with 51% citing this as a top challenge, in effect, of equal importance to business process deficiencies.

**Table 1: Planning and Replenishment: Retailer Challenges and Responses**

Challenges	% Selected	Responses to Challenges	% Selected
Our business processes don't lend themselves to using these applications	48%	Re-define existing business processes	78%
Incumbent system infrastructure vendor does not offer advanced planning application	43%	Buy best-of-breed application and integrate with existing infrastructure	41%
These applications are too expensive to implement	43%	Executive mandates for change	37%
Advanced planning and replenishment applications are too difficult to use	38%	Include data cleansing process/application as part of project	36%
Incumbent system infrastructure vendor does not offer store/SKU replenishment application	34%	Pilot program to quantify expected benefits and opportunities in advance	34%
Our sales and inventory data is not clean enough to use	34%	Use system Integrator to help re-define our business processes	19%
Merchants are not willing to let go of the process	28%	Request customization of user interface to match existing norms	15%

Source: Aberdeen*Group*, December 2005

What was surprising however, was the relatively low number of retailers who felt systems integrators could help them respond to the challenge of inadequate business proc-

esses. Responses varied dramatically by region, as shown in Figure 4, with no North American respondents rating this as one of their top three opportunities.

Figure 4: Perceived Value of Systems Integrators Varies Wildly by Region

Using System Integrators to Help Redefine Business Processes is a Helpful Response to Our Challenges
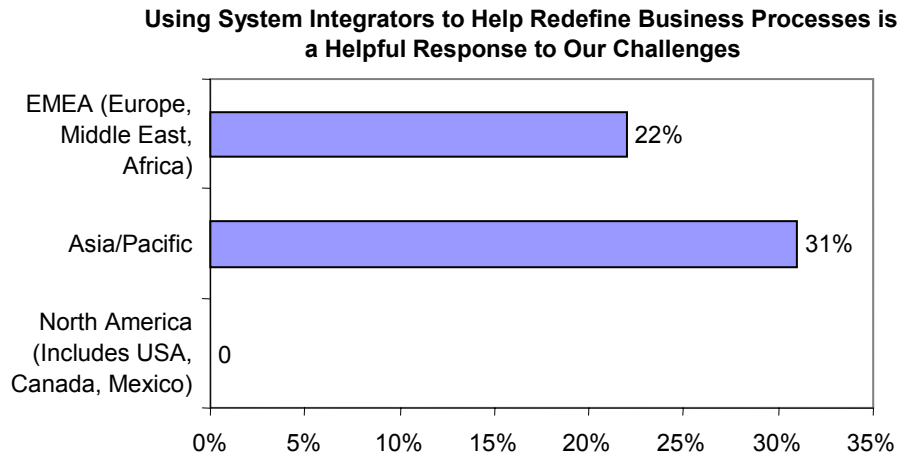
Source: Aberdeen*Group*, December 2005

Perhaps North American retailers' experience with system integrator-driven business process re-engineering in the late 1980s and 1990s was an experience they don't want to repeat. It may well be that these retailers have come to the conclusion that the value received was not equal to the expense incurred (both financially and culturally). Retailers in the Asia-Pacific region, on the other hand, may be looking to system integrators to help them assimilate learnings and best practices from other parts of the world.

For the Most Part, Merchants Are Ready to Change

In the 12 months since Aberdeen*Group* published its last benchmark study on the usage of "advanced" applications *The Proactive Merchant: Anticipating Consumer Demand*, we have seen a significant shift in retailer attitudes toward these applications. While 48% of earlier respondents identified merchant intransigence as a critical challenge, only 28% of respondents for this study felt this was one of their top three. Retailers from EMEA (Europe, Middle East and Africa) are still mired in this challenge, with 47% still reporting this as a critical issue.

Chapter Three:
Implications & Analysis

As shown in Table 2, behaviors and activities directly affect performance. Survey respondents in one of three categories – Laggard, Industry Average, or Best-in-class — exhibited differing characteristics in five key categories: process (consistency across the enterprise); organization (corporate focus/philosophy, level of collaboration among stakeholders); knowledge (visibility into and timing of results); technology (scope of automation and productivity tools) and measurements (frequency of measuring performance).

In each of these categories, survey results show that the firms exhibiting best-in-class behaviors and characteristics also enjoy best-in-class sales improvements:

Table 2: Planning and Replenishment Competitive Framework

	Laggards	Industry Average	Best-in-class
Process	Process is different for each store	Process is consistent across departments	Process is standardized company-wide, across all banners or store brands
Organization	Each category or merchandise department has a planning and replenishment function	Single planning and replenishment group reports to head merchant or CFO	Planning and replenishment group is separate entity from all other functional areas
Knowledge	Sales and receipt data reviewed weekly	Sales and receipt data reviewed daily	Sales and receipt data reviewed in near real-time

	Laggards	Industry Average	Best-in-class
Technology	Planning process is completely spreadsheet-driven, from assortment/category planning through financial plans. Replenishment done manually or with basic calculations.	Process is a mix of spreadsheets and applications. Use advanced applications to create calculations, then tweak them all	Use advanced technology to create plans and replenishment orders and tweak only on an exception basis
Measurement	Infrequent measurement: varying from "never" to annually	Results reviewed quarterly or monthly	Results reviewed weekly or daily

Source: Aberdeen*Group*, December 2005

Process and Organization

Business processes and organizational structures for planning and replenishment are clearly dependent on particular retail segments. Store-based ordering is much more common for purveyors of fast-moving consumer goods, rather than for general merchandise or apparel retailers. Retailers of fashion or short lifecycle products focus on allocation of existing orders, with a minimum of re-buying or re-ordering. For example, mass merchants or retailers selling long-lifecycle products most typically have centralized planning and replenishment processes. However, there are common threads of best practices that run through all retailing types. **Best-in-class retailers across all segments ensure the process of planning and replenishment is consistent across all banners or nameplates, and stores.**

Mass merchants and chain drug stores are pushing a larger percentage of their inventory management (60% and 58%, respectively) to their vendors by increasing the volume of vendor managed inventory (VMI).

There are significant differences in planning and replenishment processes by geography as well. As one best-in-class retailer put it, "Replenishment is a different ballgame in Europe compared to North America. Over here, the cost of real estate is extremely high yet the cost of distribution is relatively low (due to the high density of population in small countries). As a result, most retailers replenish and ship to all their stores a few times a week, and many ship to all stores every day."

He went on to say, "As such, there is little review of replenishment once needs have been determined. It is more important to get the demand forecast accurate, set the replenishment levels according to need/plan, and have sophisticated rules to protect key stores and ration stock where not all required is available. This is all done seamlessly with little user intervention."
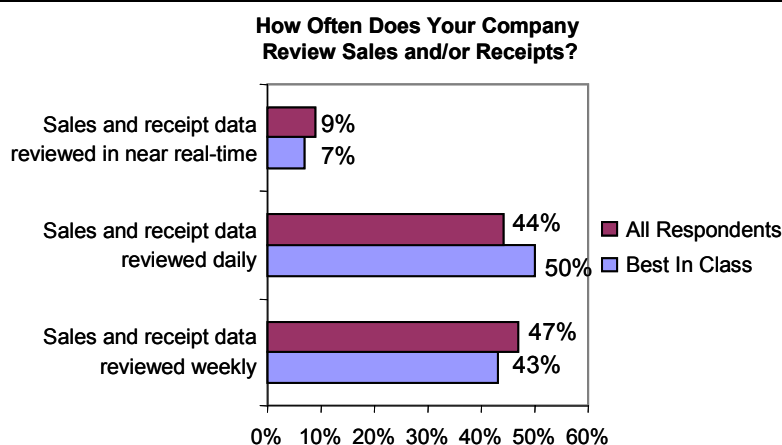
Data and Knowledge – Opportunity Missed

Only 9% of retail respondents take the opportunity to review sales and receipts in near real-time (Figure 5). This was a particularly surprising finding, especially in the fast-

moving consumer goods segment, given these retailers' objective to create a more responsive supply network and their real-time update capabilities. As one supermarket retailer mentioned, "Given the typical sales velocity of milk, we know if we sell none at all over a period of two to three hours in a store, there is likely a problem on the shelf." If, having this data in hand, the retailer was to send an alert to the store or department manager, the loop would be closed and problem solved, before too many sales were lost. Most of the hard work has been done in capturing and collating the data. Applying business intelligence to data already on hand can put immediate additional sales on the retailer's scoreboard and eliminate the risk of customer dissatisfaction.
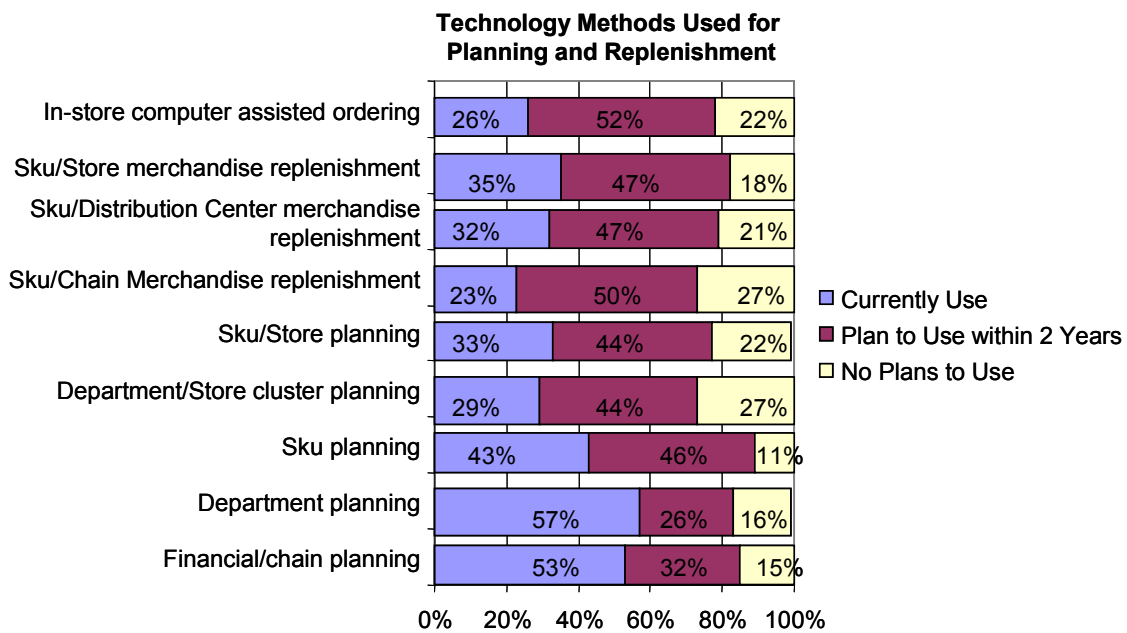
Figure 5: Retailers Miss Opportunities to Use Their Data

How Often Does Your Company Review Sales and/or Receipts?

Sales and receipt data reviewed in near real-time: 9% (All Respondents), 7% (Best In Class)

Sales and receipt data reviewed daily: 44% (All Respondents), 50% (Best In Class)

Sales and receipt data reviewed weekly: 47% (All Respondents), 43% (Best In Class)

■ All Respondents
□ Best In Class

Source: Aberdeen*Group*, December 2005

Technology Usage

There is little doubt that, given the pressures retailers face and the strategies they contemplate, the need has been recognized to move past spreadsheets as the tools of choice for advanced planning and replenishment operations. Within the next 24 months, over 80% of retailers surveyed will have implemented automated systems to support virtually all aspects of their planning, allocation, and replenishment operations.

Not surprisingly, most retailers indicating they had no plans to move to advanced planning methods have revenue of less than $50 million per year. The larger retailers have recognized the need to shift to advanced methods for planning, allocation, and replenishment.

Figure 6: Retailers Rising to the Challenge of Technology Adoption

Technology Methods Used for Planning and Replenishment

Category	Currently Use	Plan to Use within 2 Years	No Plans to Use
In-store computer assisted ordering	26%	52%	22%
Sku/Store merchandise replenishment	35%	47%	18%
Sku/Distribution Center merchandise replenishment	32%	47%	21%
Sku/Chain Merchandise replenishment	23%	50%	27%
Sku/Store planning	33%	44%	22%
Department/Store cluster planning	29%	44%	27%
Sku planning	43%	46%	11%
Department planning	57%	26%	16%
Financial/chain planning	53%	32%	15%

Source: Aberdeen*Group*, December 2005

Pressures, Actions, Capabilities, Enablers (PACE)

Aberdeen's research has consistently shown a clear relationship between the pressures companies identify and the actions they take, and their subsequent competitive performance. In other words, retailing excellence is not just an accident, a function of convenient store locations, or the result of a merchant with a "hot hand". We encourage all readers to examine the following prioritized PACE selections. Comparing their own priorities to those of Best-in-class retailers (as defined below) can provide valuable insight into opportunities to improve performance.

Table 3: PACE (Pressures, Actions, Capabilities, Enablers)

Priorities	Prioritized Pressures	Prioritized Actions	Prioritized Capabilities	Prioritized Enablers
1	Out-of-stocks create customer dissatisfaction and lost sales	Create a more responsive supply chain network	Real-time analysis and response to sales results	Real-time, multi-echelon planning and replenishment
2	Supply cycle is longer than demand cycle	Move to smaller, more frequent merchandise receipt patterns	Delayed allocations and flexible distribution networks	Supply chain visibility, advanced allocation systems, rapid analysis of demand patterns

Priorities	Prioritized Pressures	Prioritized Actions	Prioritized Capabilities	Prioritized Enablers
3	In store stock imbalances drive too many merchandise transfers	Personalize assortments for different stores or store clusters	Department and category, store cluster analysis	Advanced merchandising analytics
4	Markdowns to drive sell-through are eroding gross margin	Source replenishment merchandise closer to the point of sale	Execute replenishment based on actual sales rather than projections	Advanced replenishment systems
5	'Lumpy' receipt patterns put excess cost into the retail supply chain, from distribution center to in-store personnel and systems	Move to larger percentage of vendor managed inventory	Information sharing with merchandise vendors	Collaborative planning, forecasting, and replenishment systems

Source: Aberdeen*Group*, December 2005

Chapter Four:
Recommendations for Action

Key Takeaways

- While each retailer will need an individualized portfolio of planning and replenishment applications, it is important to avoid having too many forecast engines, each creating a different sales plan from different assumptions.

- Laggards will be best served by purchasing pre-packaged applications rather than trying to build their own advanced planning and forecasting engines, avoiding over-engineering their store clusters, and contemplating a move to a greater percentage of pre-distributed, floor-ready seasonal merchandise.

- Retailers at the norm must fully understand the detrimental effect an out-of-stock problem can have on their brand identities, create clusters of stores for planning purposes, and consider moving to a higher percentage of vendor managed inventory.

- Best-in-class retailers should move to near real-time response to sales results and receipt patterns, and shift their forecast "tweaking" practices to exception bases only.

Merchandise planning, allocation and replenishment are neither monolithic business processes, nor are they always supported by the same application vendor. Applications once considered "advanced" may be little more than glorified spreadsheets, and, as we have seen, many retailers don't even move past un-glorified spreadsheets to a commercial application. Different retail segments will find their own holy grails in combinations of assortment planning, financial planning, department / SKU planning, allocation and /or replenishment, or computer-aided ordering, but in all cases, several pertinent recommendations apply:

- *Avoid "clashing forecast engines"*

  Retailers, with their propensity for point solutions, often find themselves with a mélange of specialty applications, all calculating planned sales differently, based on the specific purpose of the application and the assumptions fed into the forecast engines. These retailers may find themselves back where they started, without a "single version of planning truth." To avoid this problem, an integrated solution driven from one forecast engine and writing to one database is best.

- *Make the break from spreadsheet-based record-keeping*

  They may be familiar, and they may help users feel more in control, but spreadsheet engines are inadequate for planning and replenishing a retailer's most important asset: inventory.

Whether a company is trying to gradually move from "Laggard" to "Industry Average," or "Industry Average" to "Best-in-class," the following actions will help spur the necessary performance improvements:

Laggard Steps to Success

1. *For seasonal or fashion merchandise, consider a move to pre-distributing "floor ready" merchandise.*

   As the predictive intelligence of forecast engines has grown, the pendulum of allocation philosophies has shifted back to pre-distributing floor-ready merchandise. Of our retail respondents, 33% of laggards reported no plans to even consider this allocation methodology, versus 17% of remaining respondents.

2. *Remember the law of diminishing returns.*

   Planning by SKU and store may seem desirable on the surface, but our survey showed that reaching that level of granularity was more a trait of laggards than it was of best-in-class. The traits for an excess of store clusters are too time-consuming to create and maintain, and are more likely to result in users giving up in frustration than adding meaningful data into the forecast engine.

3. *Don't try to build an advanced planning and replenishment system yourself.*

   While many retailers still try to build their own planning and replenishment applications, this adventure is not for the faint of heart, and certainly is not time well-spent by retailers with falling sales and merchandise turns. Absent having very deep pockets and / or very patient shareholders, laggards are better off buying a packaged solution that will bring rapid time to both proficiency and benefits.

Industry Norm Steps to Success

1. *Understand the total seriousness of an out-of- stock problem.*

   While 81% of best-in-class retailers recognized that out-of-stocks was one of their greatest pressures, only 57% of retailers with average results acknowledged this as one of their top three problems. Excess inventory is problematic, and lost gross margin caused by markdowns creates short-term drag on results, but out-of-stocks cause a complete loss of top-line revenue, and potentially, a lost customer.

2. *Cluster your stores and personalize assortments based on cluster characteristics*

   While laggards tend to micro-manage each store, retailers at the norm go to the other extreme and tend to plan for the entire chain. One clear differentiator between best-in-class and average performers was the focus on personalized store assortments. First, determine the optimal number of store clusters. Then determine the demographic and psychographic characteristics of each cluster. From there, allow your advanced planning system to calculate your assortment plans.

3. *Consider moving a larger portion of your basic stock to vendor managed inventory.*

   Some portion of every retailer's assortment is part of its unique and core identity. That portion, whether it is 20% or 80%, must be managed internally. But other items are basic, and can be best managed by your vendor. By sharing Point-of-Sale data with vendors and providing them with access to your stores, you can

off-load much of the work and effort required to maintain that portion of the assortment.

Best-in-class Next Steps

1. *Review and act on sales and receipt patterns more frequently*

   While daily review of sales and supply chain results may be adequate for retailers selling products with long lead times, it is imperative for retailers of fast moving consumer goods, sourced locally, to review results more frequently. The truth remains: out-of-stocks have remained constant and new actions are required to solve the problem.

2. *Declare an end to "tweaking"*

   Certainly exceptions occur, and an effective planning and replenishment system will bubble anomalies to the surface for user review. But too much tweaking of system forecasts will result in continued self-fulfilling prophecies of inadequate information and incorrect data. Implement and reinforce a culture that spends its time focusing on fixing exceptions and allowing the rules to govern the majority of planning, allocation, and replenishment activities.

Customers will continue to reward retailers who satisfy their expectations, just as they will not hesitate to drive one more block to get a product they can't find at your store. A big part of any promised return to customer centricity is to have the right product on the shelf when the customer wants it. The bar is only going to get higher.

Author Profile

**Paula Rosenblum,
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As director of Aberdeen*Group's* Retail Research practice, Paula Rosenblum focuses on the critical issues facing today's retail executives. The overarching themes of her research are "*Thriving in the Post-Wal-Mart World*" and "*The Globalization of Retailing – Exploring Best Practices Around the World.*"

Paula's research demonstrates how best-in-class retailers satisfy their various constituencies. These retailers please their shareholders by promising sustainable growth; delight consumers by providing product selection, convenience, and reasonable pricing; and motivate employees by setting clear expectations and defining manageable tasks. Her studies give retailers insights into strategies to optimize their enterprises, empower the customer through the art of merchandise selection, and marry world-class technology with logistics management.

Prior to joining Aberdeen, Rosenblum was a retail research director for AMR Research, Previous to that, Rosenblum spent over 20 years as a retail technology executive.

Rosenblum holds an M.B.A. in Management of High Technology from Northeastern University and was nominated for the Beta Gamma Sigma Honor Society. She also holds a Bachelor of Arts from the State University of New York. She is a member of the American Apparel and Footwear Association's Supply Chain Leadership Council.

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Appendix A:
Research Methodology

B etween October and November 2005, Aberdeen*Group* examined the planning, allocation and replenishment practices, initiatives, procedures, experiences, and intentions of more than 60 retailers.

Responding executives completed an online survey that included questions designed to determine the following:

- Methods of planning, allocation and replenishment deployment, and management;

- Current and planned use of various applications defined as "advanced" by their use of sophisticated mathematical algorithms; and

- Business challenges and pressures these retailers face that drive adoption of new initiatives.

Our intention was to determine whether and how each of the above created competitive advantage for retailers that use them and a disadvantage for those who do not. From there, we identified emerging best practices and provided a framework by which readers could assess their own capabilities and ways to improve effectiveness.

Responding enterprises included the following:

- *Job Titles/Functions:* The research sample included respondents with the following job titles: Senior management including CEOs, CFOs, CEOs and CIOs (14%), Vice Presidents (8%); directors (11%), managers (35%) and internal consultants and staff (32%). Functional areas represented included planning, allocation and/or replenishment, merchandising, logistics, finance, information technology, marketing, product development, and others.

- *Retail Segments:* The research sample included respondents from across the retail spectrum. Fast-moving consumer goods companies represented 37% of the respondent base including supermarket, convenience stores, chain drug, and warehouse stores. Over 48% were from general merchandise and apparel, including large and small footprint specialty stores, mass merchandisers, and department stores. The remaining 15% came from hardware and do-it-yourself , furniture, and restaurant and hospitality.

- *Geography:* Forty-three percent (43%) of respondents were from North America, including the U.S., Canada and Mexico. Thirty-one percent (31%) were from Europe, the Middle East and Africa, 21% were from the Asia/Pacific region. Remaining respondents were from South and Central America and the Caribbean (5%).

- *Company Size:* About 34% of respondents were from large enterprises (annual revenues above $1 billion); 33% were from mid-size enterprises (annual revenues between $50 million and $1 billion); and 33% were from small businesses (annual revenues of $50 million or less).

Solution providers recognized as sponsors of this report were solicited after the fact and had no substantive influence on the direction of the *The Business Benefits of Advanced Planning and Replenishment Benchmark Report*. Their sponsorship has made it possible for Aberdeen*Group* to make these findings available to readers at no charge.

Table 4: PACE Framework

PACE Key
Aberdeen applies a methodology to benchmark research that evaluates the business pressures, actions, capabilities, and enablers (PACE) that indicate corporate behavior in specific business processes. These terms are defined as follows:
Pressures — external forces that impact an organization's market position, competitiveness, or business operations (e.g., economic, political and regulatory, technology, changing customer preferences, competitive)
Actions — the strategic approaches that an organization takes in response to industry pressures (e.g., align the corporate business model to leverage industry opportunities, such as product/service strategy, target markets, financial strategy, go-to-market, and sales strategy)
Capabilities — the business process competencies required to execute corporate strategy (e.g., skilled people, brand, market positioning, viable products/services, ecosystem partners, financing)
Enablers — the key functionality of technology solutions required to support the organization's enabling business practices (e.g., development platform, applications, network connectivity, user interface, training and support, partner interfaces, data cleansing, and management)

Source: Aberdeen*Group*, December 2005

Table 5: Relationship between PACE and Competitive Framework

PACE and Competitive Framework: How They Interact
Aberdeen research indicates that companies that identify the most impactful pressures and take the most transformational and effective actions are most likely to achieve superior performance. The level of competitive performance that a company achieves is strongly determined by the PACE choices that it makes and how well it executes.

Source: Aberdeen*Group*, December 2005

Table 6: Competitive Framework

Competitive Framework Key
The Aberdeen Competitive Framework defines enterprises as falling into one of the three following levels of retail practices and performance:
Laggards— Retail practices that are significantly behind the average of the industry, and result in below average performance
Industry norm — Retail practices that represent the average or norm, and result in average industry performance.
Best-in-class— Retail practices that are the best currently being employed and significantly superior to the industry norm, and result in the top industry performance.

Source: Aberdeen*Group*, December 2005

Appendix B:
Related Aberdeen Research & Tools

Related Aberdeen research that forms a companion or reference to this report include:

- *The Proactive Merchant: Anticipating Consumer Demand* (December 2004)

- *Supply Chain Inventory Strategies Benchmark Report: How Inventory Misconceptions and Inertia Are Damaging Companies' Service Levels and Financial Results* (December 2004)

- *Chasing the Holy Grail: A Unified Planning Process for Retailers* (February 2005)

- *The Supply Chain Planning Benchmark Report* (July 2003)

Information on these and any other Aberdeen publications can be found at www.Aberdeen.com.

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Aberdeen*Group*

Our Mission

To be the trusted advisor and business value research destination of choice for the Global Business Executive.

Our Approach

Aberdeen delivers unbiased, primary research that helps enterprises derive tangible business value from technology-enabled solutions. Through continuous benchmarking and analysis of value chain practices, Aberdeen offers a unique mix of research, tools, and services to help Global Business Executives accomplish the following:

- IMPROVE the financial and competitive position of their business now
- PRIORITIZE operational improvement areas to drive immediate, tangible value to their business
- LEVERAGE information technology for tangible business value.

Aberdeen also offers selected solution providers fact-based tools and services to empower and equip them to accomplish the following:

- CREATE DEMAND, by reaching the right level of executives in companies where their solutions can deliver differentiated results
- ACCELERATE SALES, by accessing executive decision-makers who need a solution and arming the sales team with fact-based differentiation around business impact
- EXPAND CUSTOMERS, by fortifying their value proposition with independent fact-based research and demonstrating installed base proof points

Our History of Integrity

Aberdeen was founded in 1988 to conduct fact-based, unbiased research that delivers tangible value to executives trying to advance their businesses with technology-enabled solutions.

Aberdeen's integrity has always been and always will be beyond reproach. We provide independent research and analysis of the dynamics underlying specific technology-enabled business strategies, market trends, and technology solutions. While some reports or portions of reports may be underwritten by corporate sponsors, Aberdeen's research findings are never influenced by any of these sponsors.

Founded in 1988, Aberdeen*Group* is the technology-driven research destination of choice for the global business executive. Aberdeen*Group* has over 100,000 research members in over 36 countries around the world that both participate in and direct the most comprehensive technology-driven value chain research in the market. Through its continued fact-based research, benchmarking, and actionable analysis, Aberdeen*Group* offers global business and technology executives a unique mix of actionable research, KPIs, tools, and services.

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