



# Retail Analytics Moves To The Frontline

Benchmark Report 2014

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## Executive Summary

“Business Intelligence & Analytics” were an outgrowth of retailers’ newfound abilities to capture product movement data from store scanners in the 1980’s. At the time, the value of the insights to be derived from item-level sales information as a proxy for consumer demand seemed endless, and in fact those retailers that embraced the value of product information as a strategic weapon in many cases became industry leading Retail Winners. The explosion of new data available today that reflects consumers’ shopping habits and preferences, particularly as they use digital technologies to make their purchase decisions both away and while in the store, dwarfs the volumes of data from those earlier times. But the tools to capture, store and analyze the new data, and the technologies to make insights derived useable in operational environments, are also leaps and bounds more powerful than those from times past. And as RSR’s latest study on BI & Analytics in Retail shows, those retailers that understand the strategic importance of the new data are already becoming today’s Winners.

Some highlights from the study:

- The ability to *plan and execute more effectively* has supplanted *reporting results* as the most important use of data that retailers collect. And almost one-half of the survey respondents believe a top use of their data is to *manage relationships with customers* (**Research Overview**).
- Retail Winners continue to focus on the challenge of understanding what consumers are demanding, while Laggards look over their shoulders at how their competition is responding to consumer demands to model their own responses (**Business Challenges**).
- Lagging retailers rely more heavily on *experience and intuition* than Winners to make operational decisions. Winners consistently put more emphasis on making decisions using experience/intuition AND data (**Opportunities**).
- Retail Winners are moving on to the next opportunity: to be able to execute with more precision based on what they learn from customer insights, and to react more quickly to shifts in demand. Specifically that means *improved inventory effectiveness* and *improved Marketing effectiveness* (**Opportunities**).
- Winners fret about the *availability of analytical talent* available to them, and therefore want simpler tools. Laggards worry about *budgetary constraints*, but they also are concerned about the complexity of existing tools (**Organization Inhibitors**).
- *Data visualization* and *predictive modeling* are becoming important to retailers’ “basic” BI & Analytical capabilities. Winners are moving faster to deliver insights for operational use through *mobile access, alerts, web browser access, and scorecards & dashboards* (**Technology Enablers**).

Throughout this report, the underlying theme is that “information = Intelligence = Winning”. To that end, we’ll offer several pragmatic suggestions on how retailers should proceed. These recommendations can be found in the **Bootstrap Recommendations** portion of the report.

We hope you find our 2014 report ***Retail Analytics Moves To The Frontline*** interesting and useful,

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# Research Overview

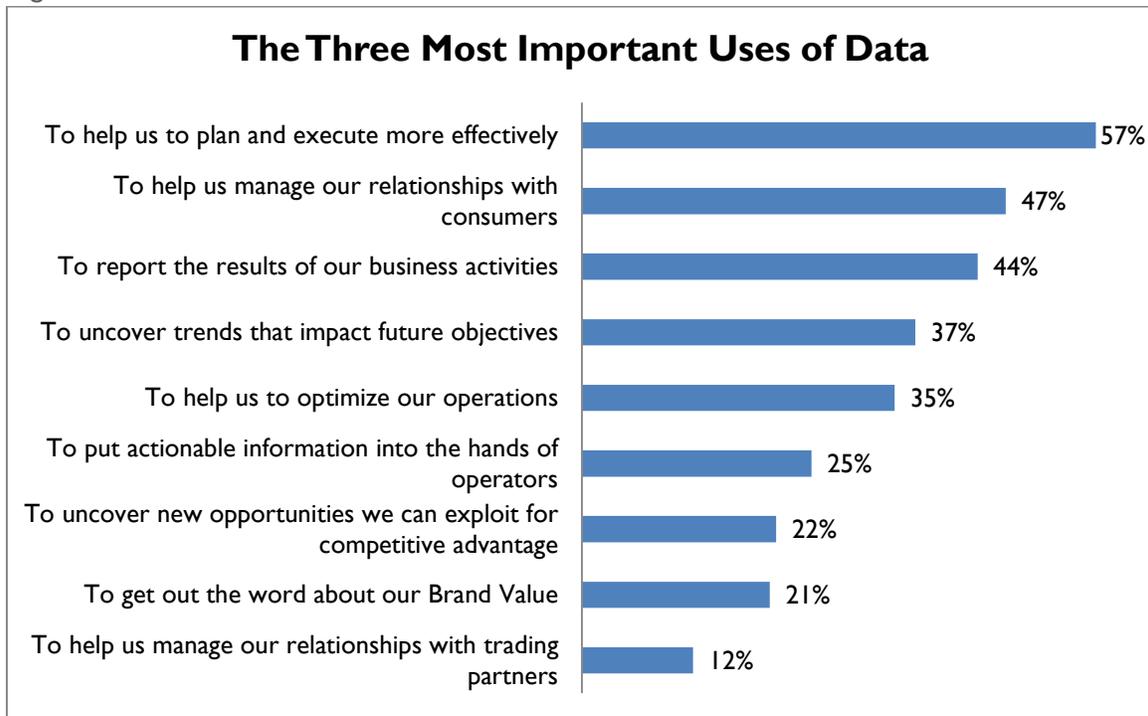
Long-time veterans think of retailing as emotional. Basic axioms: Marketers attempt to make emotional connections with shoppers, merchants look for products that resonate with consumers on an emotional level, and in fact, those same merchants order, allocate and price those products based more on gut feel (emotions) than on hard data.

This has changed. For the past seven years, we've seen a steady, irrevocable shift in the retailer mindset. An onslaught of customer data brought by the movement of consumers into digital channels, and a changing of the guard in the industry itself have created a desire to do more than just look at "the numbers." The quest has shifted to understanding what those numbers mean and how they can translate into a better run, more profitable business. Analytics are no longer retrospective: they've made the shift into a more future-oriented mode. They're used to optimize planning and execution across the entire enterprise.

This data deluge presents opportunities to improve real relationships with customers. Ironically, these relationships may be more virtual than physical. To wit: Amazon.com remains America's favorite retailer even as most of its customers have never had a single interaction with an actual human company representative. How can that be? The relationship is not emotional, it's proactive. And it's uncluttered. It's data-driven. It's un-ambivalent.

With this as a backdrop, we asked retailers to select the three most important uses of the data they collect. Their answers, in Figure 1, are instructive.

Figure 1: Data is Our Friend



Source: RSR Research, January 2014

It's no small thing that retailers cite data as a tool to *plan and execute* more effectively 30% more often than as a tool to *report the results* of business activities. They've recognized the value of predictive analytics over scorekeeping.

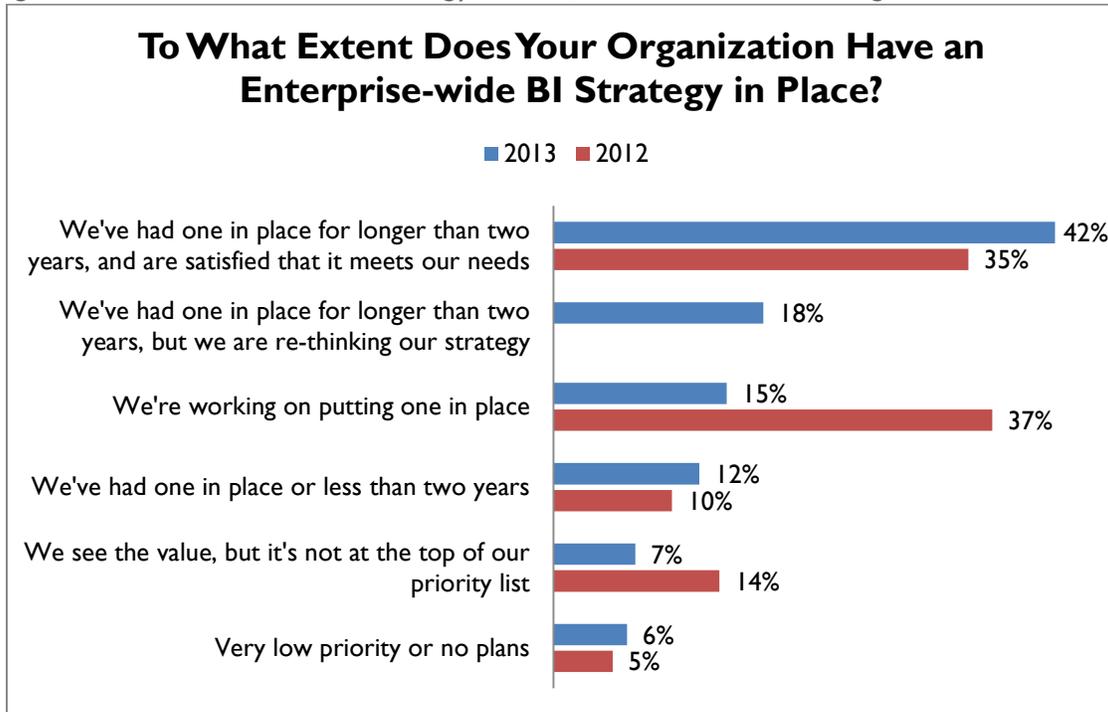
And, they want to follow Amazon's lead, though generally in a more personal way: close to half believe a top-three use of their data is to manage relationships with customers.

As we'll see later in this report, there's also strong interest in getting that same data into the hands of those who can actually make a daily difference. Data is moving out of the executive suite and into the hands of the masses. This has implications to IT departments and technology vendors alike. We'll highlight this in the Organizational Inhibitors section of the report.

When we to view data as a corporate asset rather than just a scorekeeping device, the need for an enterprise plan for the storage, management, and use of this data becomes clearer. Old strategies may need to be re-thought, or new ones developed for the first time.

This year we segregated those retailers who have an existing enterprise strategy that they're re-thinking from those who are starting fresh for the first time and learned something really interesting as a result. Close to a fifth of respondents do have an Enterprise-strategy in place but they're re-thinking its adequacy (Figure 2).

Figure 2: Do We Have a Strategy, and If So, Is It Good Enough?



Source: RSR Research, January 2014

In particular, retailers with \$1-5 billion in annual revenue are taking this tack (27%). The retailers most satisfied with their enterprise-wide BI strategy are those who've had to put one in place to manage their far-flung empires: the largest retailers with over \$5 billion in annual revenue. Sixty-four percent of those retailers are content with what they have in place, while 14% are in the re-thinking process.

While this activity seems impressive, we do feel there should be a greater sense of urgency around improving predictive analytic capabilities. We are at a point in retailing’s history where the market is more competitive than ever before, and rapid responses to changes in demand can make the difference between success and failure.

Retailers who over-perform in year-over-year comparable sales have been leading the way. Fifty-six percent of these over-achievers are satisfied with their enterprise-wide BI strategy, vs. 35% of those who under-perform, and 17% are re-thinking their existing strategies, vs. only 10% of under-performers.

We call these over-performers “Retail Winners.” RSR has long observed the behaviors of these Winners are significantly different than their peers. We believe these behaviors and thought processes are keys to their success. An explanation of our thought process follows.

## Defining Winners and Why They Win

RSR’s definition of Retail Winners is straightforward. We judge retailers by year-over-year comparable store/channel sales improvements. Assuming industry average comparable store/channel sales growth of **three percent**, we define those with sales above this hurdle as “Winners,” those at this sales growth rate as “average,” and those below this sales growth rate as “laggards” or “also-rans.”

It is consistent throughout much of RSR’s research findings that Winners don’t merely do the same things better, they tend to do different things. They think differently. They plan differently. They respond differently. As we’ll see, their attitudes and usage of Advanced Analytics are no exceptions. As we already cited, 56% were early into a forward-thinking enterprise BI strategy. Throughout this report we’ll continue to highlight significant differences between Winners and laggards. These differences are often not subtle at all.

## Methodology

RSR uses its own model, called the “BOOT Methodology<sup>SM</sup>,” to analyze Retail Industry issues. We build this model with our survey instruments. See [Appendix A](#) for a full explanation.

In our surveys, we continue to find differences in the thought processes, actions, and decisions made by retailers who outperform their competitors and the industry at large – Retail Winners. The BOOT helps us better understand the behavioral and technological differences that drive sustainable sales improvements and successful execution of brand vision.

## Survey Respondent Characteristics

RSR conducted an online survey from November-December 2013 and received answers from 130 qualified retail respondents. Respondent demographics are as follows:

- Job Title:

Executive/Senior Management (C-level or VP)	17%
Middle Management (VP/Director, Manager)	43%
Individual Contributor and Other	40%

- Functional Area of Responsibility:
 

Executive Team	13%
Merchandising	16%
Marketing	14%
Store Operations	30%
eCommerce / Direct Operations	5%
Supply Chain	5%
Finance	2%
IT	14%
  
- 2012 Revenue (US\$ Equivalent)
 

Less than \$250 Million	10%
\$250 - \$499 Million	19%
\$500 - \$999 Million	12%
\$1 - \$5 Billion	26%
Over \$5 Billion	33%
  
- Products sold:
 

Fashion / Short Lifecycle	25%
Seasonal	10%
Basics/Replenished Items	25%
Durable Good / Consumer Electronics	21%
Perishable / Food	19%
  
- Headquarters/Retail Presence:
 

USA	80%	88%
Canada	4%	41%
Latin America	1%	23%
UK	1%	26%
Europe	10%	29%
Middle East	2%	15%
Africa	2%	11%
Asia/Pacific	2%	22%
  
- Year-Over-Year Sales Growth Rates (assume average growth of 3%):
 

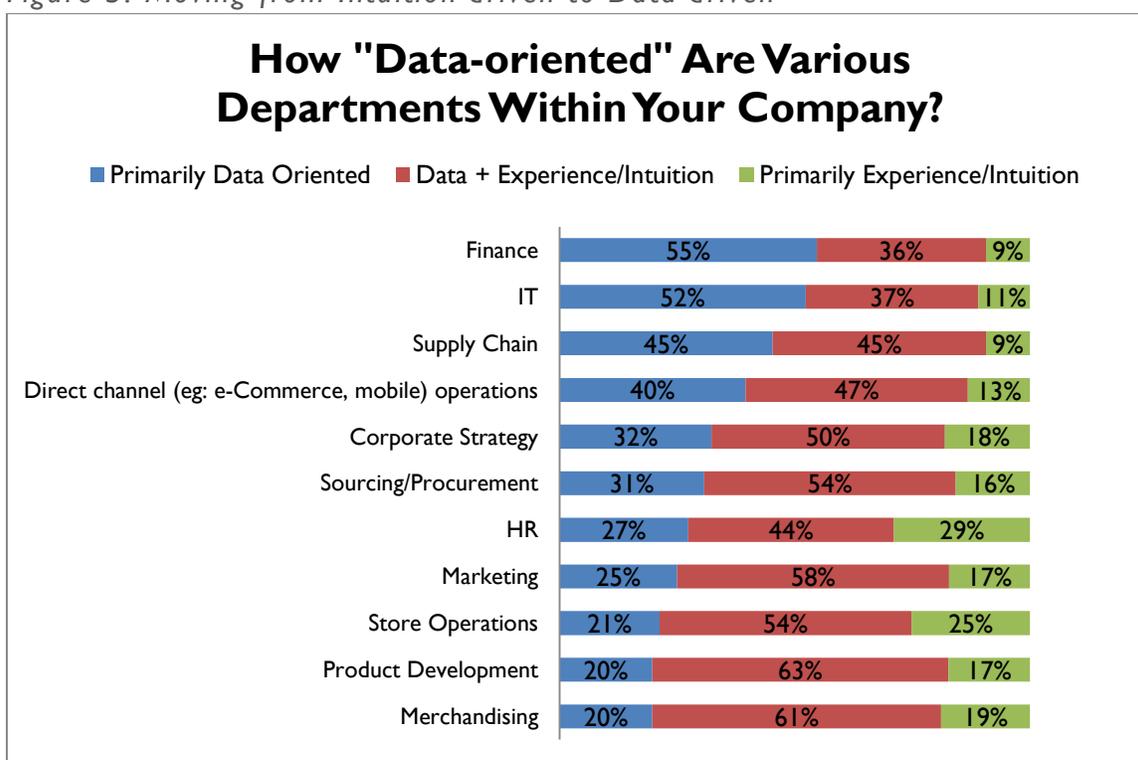
Better than average (Retail Winners)	49%
Average	36%
Worse than average (Laggards)	15%

# Business Challenges

## Moving from an Emotional to a Data-driven Industry

As we observed at the start of this report, retail's history is one of emotional and gut-based decision making. Each retail sub-vertical has had its own "diviners of demand." Merchant Princes and Shoe Dogs were just two colloquial expressions that describe those seers. As Supply Chain Masters like Walmart came onto the scene, they required data warehouses just to keep score of product movement. In fact, when push came to shove, product movement (or sales) was a proxy for customer sentiment. As we can see from Figure 3, there's still a lot of intuition used across the retail enterprise, not just in merchandising and marketing, but in seemingly straightforward departments like Finance and even IT.

Figure 3: Moving from Intuition-driven to Data-driven



Source: RSR Research, January 2014

We're not naïve enough to assume that a task like product selection or crafting a compelling marketing message can be accomplished solely through data analysis. But data can certainly help. It's worthy to call out a few differences based on retailer performance:

- More than 40% of Laggards are still merchandising and marketing solely on experience/intuition vs only 10% of Winners. Forty percent or more of Retail Winners use a mixture of data and intuition to do the job. Of course, the largest retailers are a bit less likely to go solely with experience or intuition regardless of performance, but a surprising 14% of retailers with annual revenue greater than \$5 billion report they do just that.
- A somewhat mind-boggling 47% of laggards use experience and intuition to drive HR processes vs. only 16% of Retail Winners. This number is, to some extent, driven by retailers with under \$250 million in annual revenue, but in today's world of SaaS-based

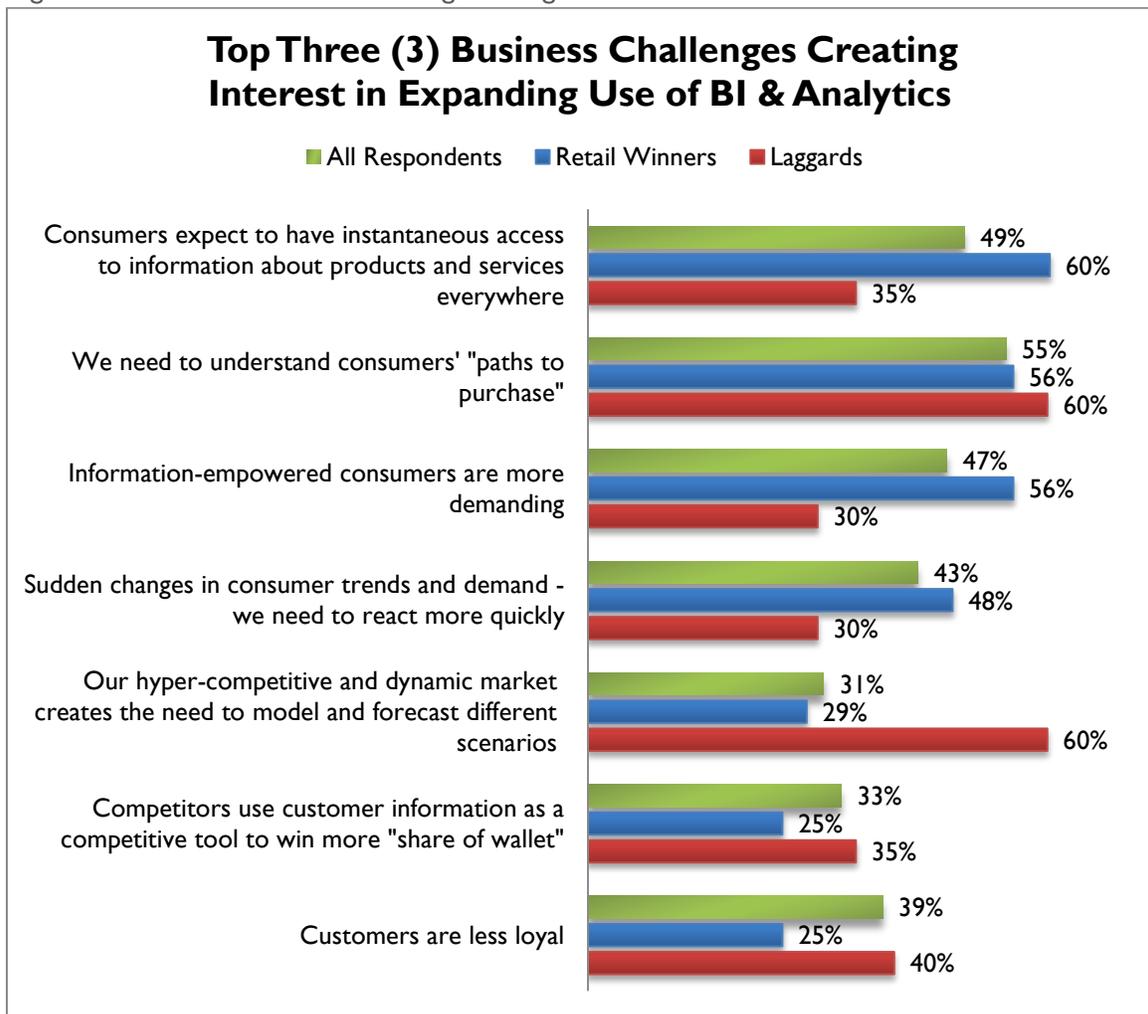
applications, size is really no excuse. We can't help but wonder if our industry's persistent and seemingly intractable employee-related shrink comes as a byproduct of hiring by "hunch" rather than through basic analytical tools.

As we'll see in the Opportunities section of this document, our respondents do see the value of making the shift to more analytical processes, but old cultures die hard. This will become clearer in the Organizational Inhibitors section of the report.

### Business Challenges Driving Change are Mostly About the Consumer

It sounds somewhat trite to say it, but 2013 was clearly the year of the consumer. Customer-related business challenges permeated virtually every benchmark RSR conducted. This study is no exception, but as we can also see, laggards have a particular and distinct problem (Figure 4).

Figure 4: The Customer Driving Change



Source: RSR Research, January 2014

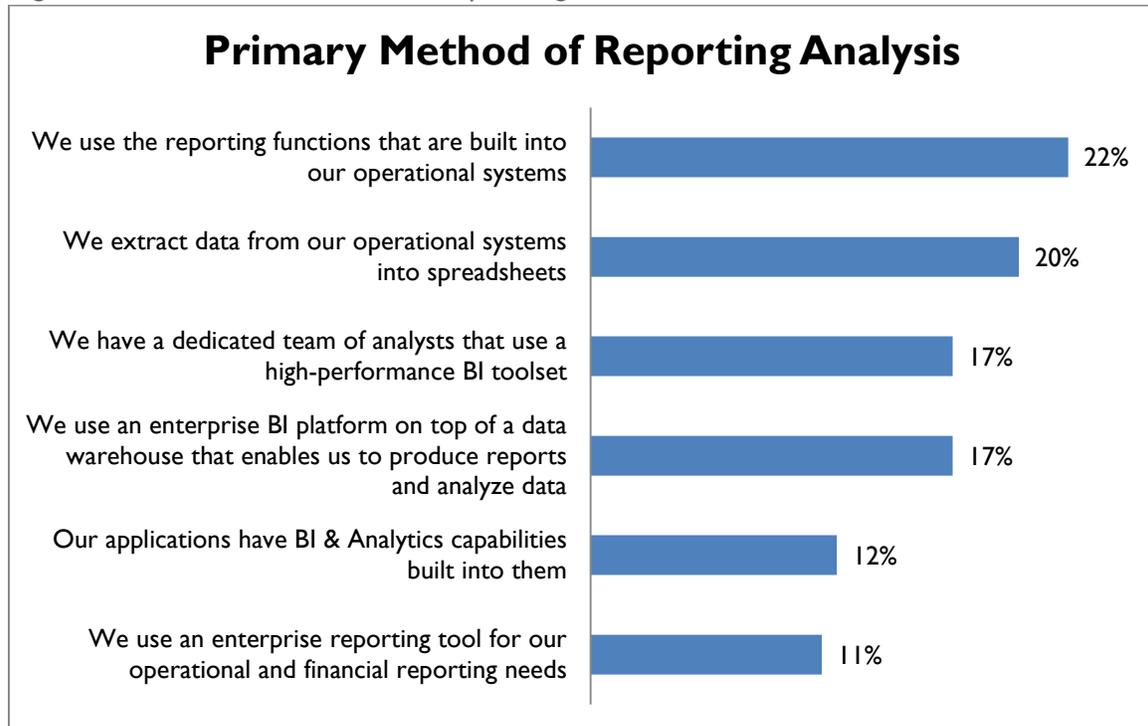
Retail Winners understand that consumers are demanding, expect full access to information about products and services wherever they may be, and that these same consumers can be fickle, rapid and radical changes in trends and demands are expected, and lag-time to action must be decreased.

Laggards on the other hand are perennially focused on their competitors. More than twice as many cite competitive forces to help them model than business than Winners. This is also a theme through much of our research. Winners look within or to the customers, laggards look over their shoulders.

## A Lack of Common Ground Around Commonly Used Tools

We were surprised to find very little commonality among our respondents in the tools they use for analytics and reporting. A slight plurality use reporting functions that come with their operational systems, but just slightly fewer push data into spreadsheets (Figure 5).

Figure 5: No Clear Leader in Reporting Methods



Source: RSR Research, November 2013

This is particularly surprising given the large number of off-the-shelf, preloaded tools and devices available in the industry.

The one place we see a significant problem and opportunity is in the small retailer segment. NO respondents report they use reporting functions from operational systems, while 46% report they extract data into spreadsheets. This presents a great opportunity for enterprising vendors and an opportunity for the retailers themselves to become more data-driven.

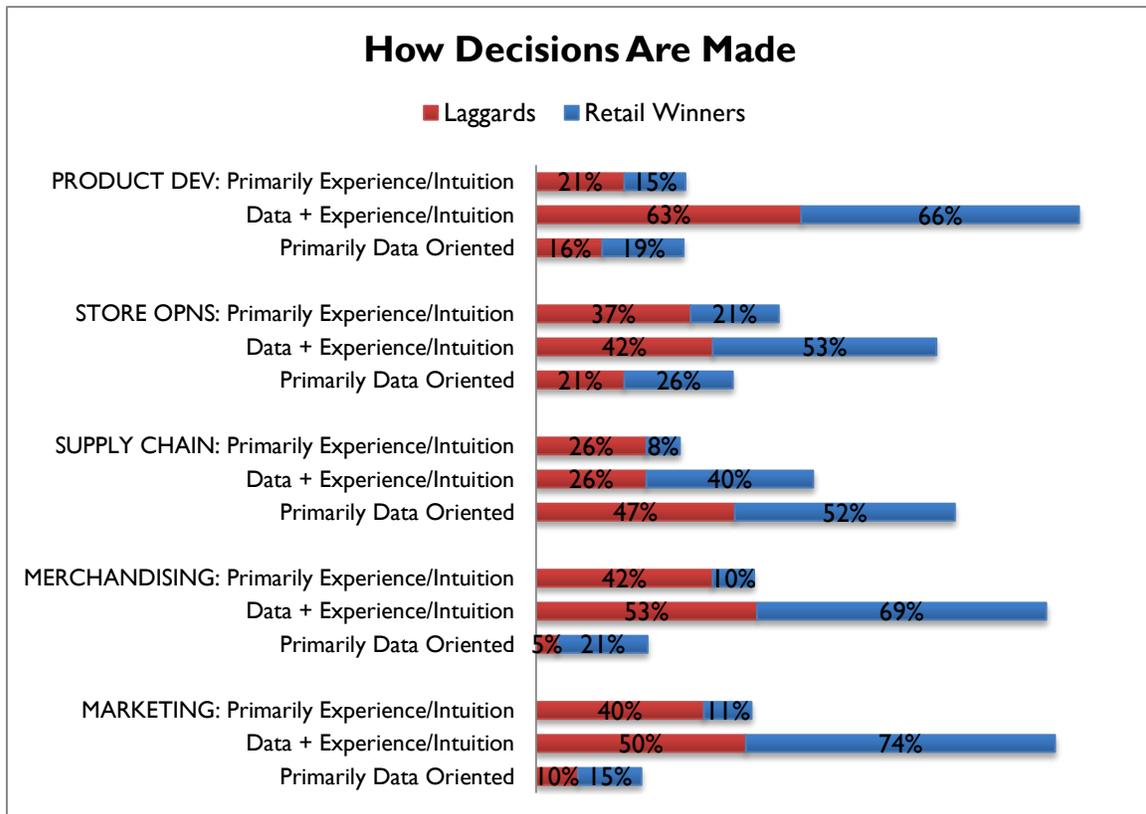
The mid-market (those with annual revenue from \$500-\$999 million) seem to have invested in BI appliances, with 40% reporting an enterprise BI platform on top of a data warehouse. We wonder why this has not trickled down to their smaller brethren.

# Opportunities

## Art vs. Science

As we saw earlier in this report, the influence of data in line-of-business decision making is growing. But it's probably more accurate to say that on the retail operations side of the house (particularly Marketing, Store Operations, Product Development, Supply Chain, and Merchandising) experience/intuition is supported by data analysis rather than supplanted by it. Arguments about the “art” vs. “science” of retailing are a distraction. While the retail industry continues to be a place where experience really counts, a key factor in winning in today's environment is in how effectively the information asset is utilized. Winners consistently put more emphasis on making decisions using experience/intuition AND data, particularly when it comes to operational functions dealing with supply and demand (Figure 6).

Figure 6: Informed & Experienced



Source: RSR Research, January 2014

Results in this study show that retailers are not satisfied with the balance between art and science when it comes to demand generation. In particular, a majority of respondents feel that Marketing in particular would benefit from greater use of BI & Analytics (Figure 7). And to an only slightly lesser degree, Merchandising and Store Operations- functions that are charged with satisfying demand - would benefit as well.

Figure 7: A Potential Game-Changer?



Source: RSR Research, January 2014

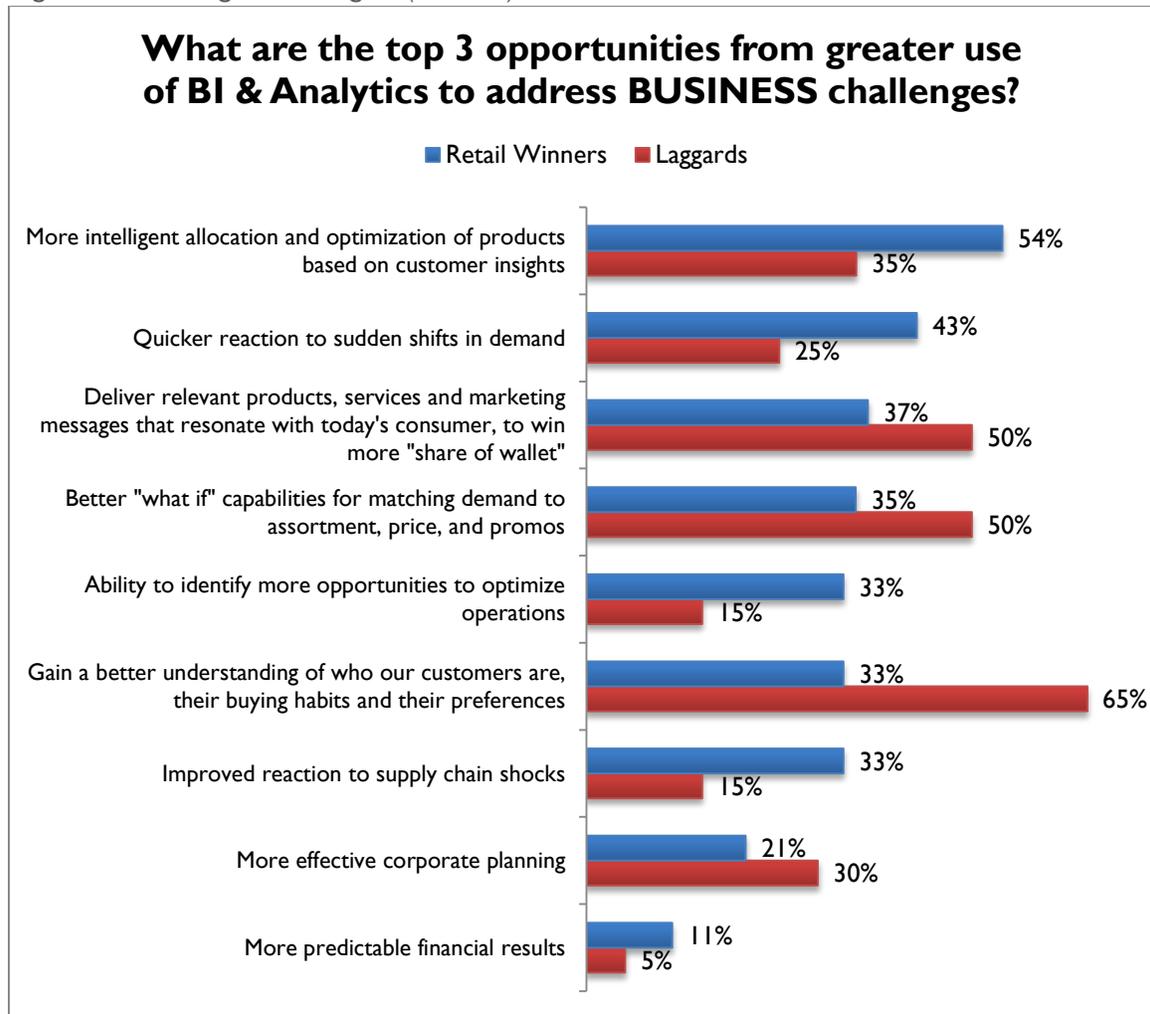
Interestingly, the group of retailers that feels most strongly that key operational functions would benefit is average performers – especially when it comes to Merchandising (61% vs. 49% overall) and Store Operations (54% vs. 41% overall). **Better use of next generation analytical tools and capabilities is seen as a potential game changer for these retailers.**

Retailers generally think that LOB functions considered primarily data-driven in their decision making - Finance, IT, and Direct sales - are not particularly in great need of change. Nor are data-plus-experience driven organizations Corporate Strategy and Procurement. But it's worth noting an odd difference between Winners and all other retailers for one back-office function: while only 15% of Winners indicate that their HR functions are driven primarily by intuition & experience, a surprising 47% of Laggards and 40% of average performers say that it is the case. Regardless, few Laggards and average performers want to change (5% and 2%, respectively), whereas 17% of Winners think that even the HR function could benefit from more data analysis. Clearly, **even for back office functions, Winners see opportunities from more effective use of BI and analytics than do their lesser performing competitors.**

### Moving Into Scoring Position... Or Just Trying To Get On Base?

Much has been made throughout the industry of the need to understand new non-transactional signals incoming from consumers, particularly from consumers' digitally enabled paths to purchase, to be more responsive to changing preferences and demand. But that discussion has been going on for several years now, and Retail Winners are moving on to the next opportunity: how to execute with more precision based on what they've learned from customer insights, and reacting more quickly when does demand shift (Figure 7).

Figure 8: Acting On Insight (Part 1)



Source: RSR Research, January 2014

Laggards on the other hand continue to fret about what the customer is up to, and they feel that gaining better understanding of their customers is their best opportunity for getting out of the doldrums that they are in. But change is hard; in our 2009 study on BI & analytics, we observed virtually the same situation with Laggards:

“Laggards ... can't identify their best customers, don't know what those customers are thinking, and are pained to match inventory to demand. While it would be nice to provide this information in near-real-time, in fact, providing it even after the fact would help these retailers improve their decision-making going forward. We believe a lack of past investments in the basics of science-based retail insights have returned to haunt these retailers in troubled times.”<sup>1</sup>

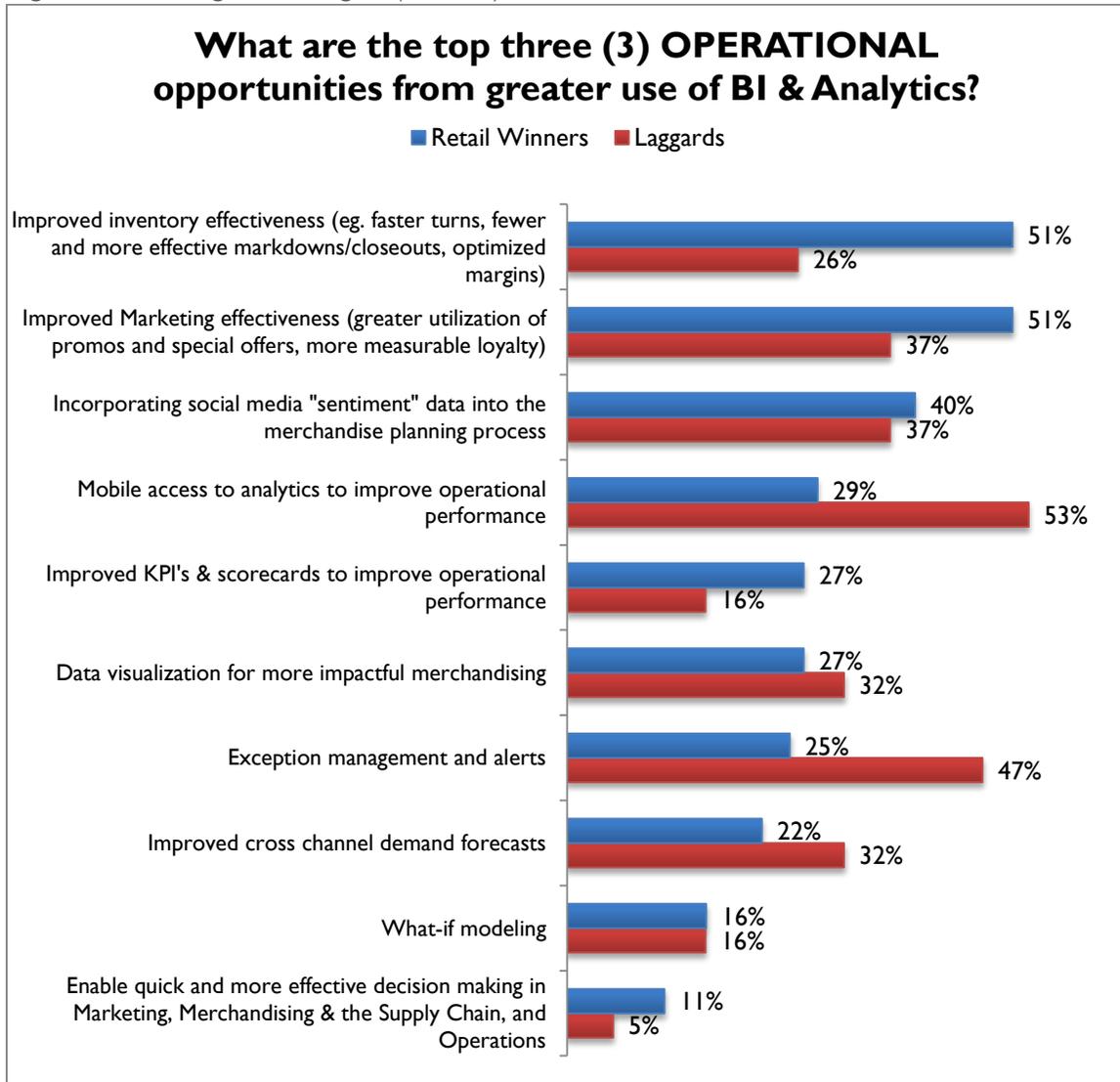
Using a baseball analogy, Winners are getting ready to score some more runs, while Laggards are still trying to get to first base.

<sup>1</sup> *Using Business Intelligence to Help Control Outcomes in an Uncontrollable World*, Benchmark Report 2009, © RSR Research LLC, November 2009

## “Improve” What?

As if using customer insights derived from BI & Analytics to optimize product mix wasn't enough of a winning hand for over-performers, these retailers also want to execute more effectively once an optimized assortment is determined. A majority of Retail Winners sees the opportunity to use BI & analytics in daily operations to achieve very specific objectives: to turn inventory faster and shed old products more quickly, in order to optimize margins and ultimately profitability (Figure 8). Over-performers also want to use advanced analytics during demand generation, to drive greater loyalty with more effective marketing.

Figure 9: Acting On Insight (Part 2)



Source: RSR Research, January 2014

Laggards want something easy- but still undefined. A majority of these retailers favor “mobile access to analytics to improve operational performance” without really focusing on defining what “improved performance” means to them. In a similar vein, almost ½ of Laggards see “exception management & alerts” from BI & analytics as an opportunity - again, without focusing on what exactly constitutes an exception.

This is history repeating itself. In the past days of supply chain mastery, Winners used technology to execute a winning strategy – highly optimized supply chains delivering commoditized products to the point of purchase (the store) cheaply and reliably. But customer expectations and behaviors have changed. Winners are focused on greater effectiveness and efficiency of their retail operations driven by a better understanding of new customer behaviors and preferences. Those business and operational opportunities are *enabled* by new BI & Analytics capabilities.

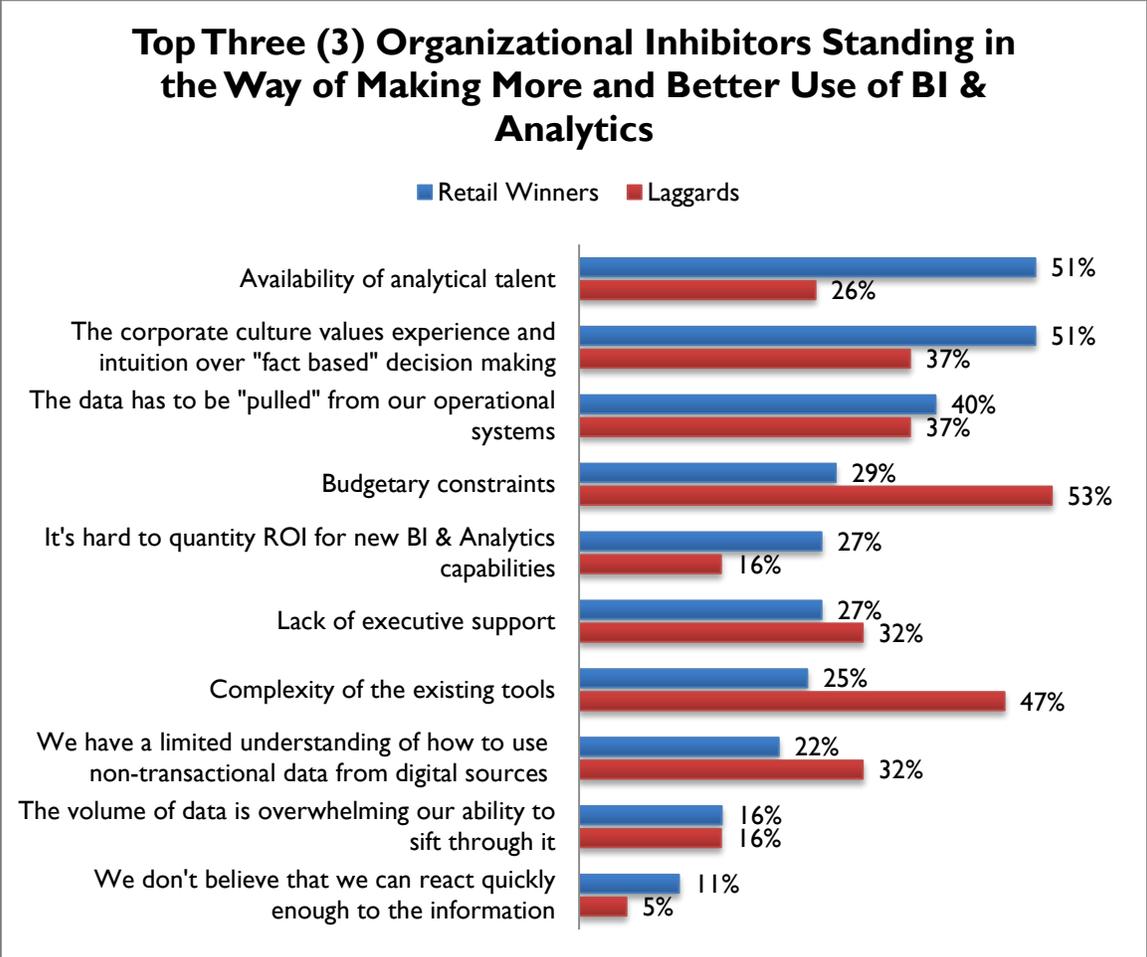
Laggards seem to want the technology to lead them to improved performance. But as we saw at the top of this section, **the best formula for success is in having experience/intuition supported by data analysis rather than being supplanted by it.** A lousy mechanic with the latest tools is still a lousy mechanic. The same is true in retail – as it has always been, understanding the business objective must come first, followed by precision execution enabled by the right tools.

# Organizational Inhibitors

## Getting Information Into the Hands of Those Who Can Use It

At the beginning of this study we noted retailers' desire to move Business Intelligence and Advanced Analytics out of the Executive suite and back rooms of the IT department into the hands of "the masses" or those who can be proactive with the information. Retailer responses to our question on Organizational Inhibitors show just what's holding them back. The most frequently cited issues vary wildly depending on retailer performance (Figure 9).

Figure 10: Change Comes Slowly and Talent is Scarce



Source: RSR Research, January 2014

Winners are focusing in two directions: Finding the specialized talent needed (and scarce) to work with the data, and managing the cultural shift to data-driven decision-making.

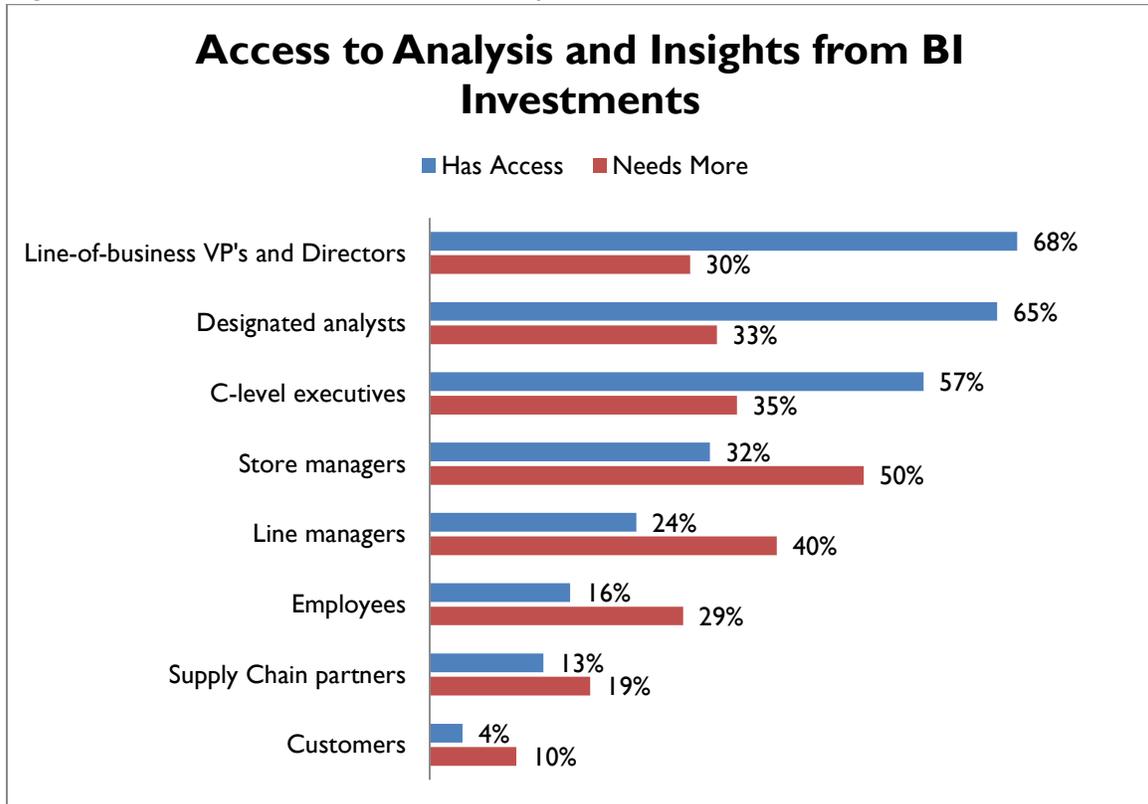
Laggards are operating at a more primal level: they can't find the budget required for new capabilities, and they find existing tools too complex. RSR believes that older tools are indeed more complex. That's why Winners continue looking for fresh talent to manage them. But laggards, who are already cash constrained are not willing to look for expensive analytical talent. Rather, they prefer simpler tools. Frankly, in this regard, we agree with them. Tools have indeed

improved. It's time to take a new look at new technologies. As we'll see in the Technology Enablers section of this report, many retailers are doing just that.

### Is Data Access in the Right Hands Now?

We know retailers would generally like to put data into the hands of day-to-day decision-makers, but that begs the question...“Who has it now?” We asked our retailers both who has the data, and who should have more access to it. The answers are unsurprising, but clearly worthy of note (Figure 10).

Figure 11: Who's Got the Data Today? Who Needs More?



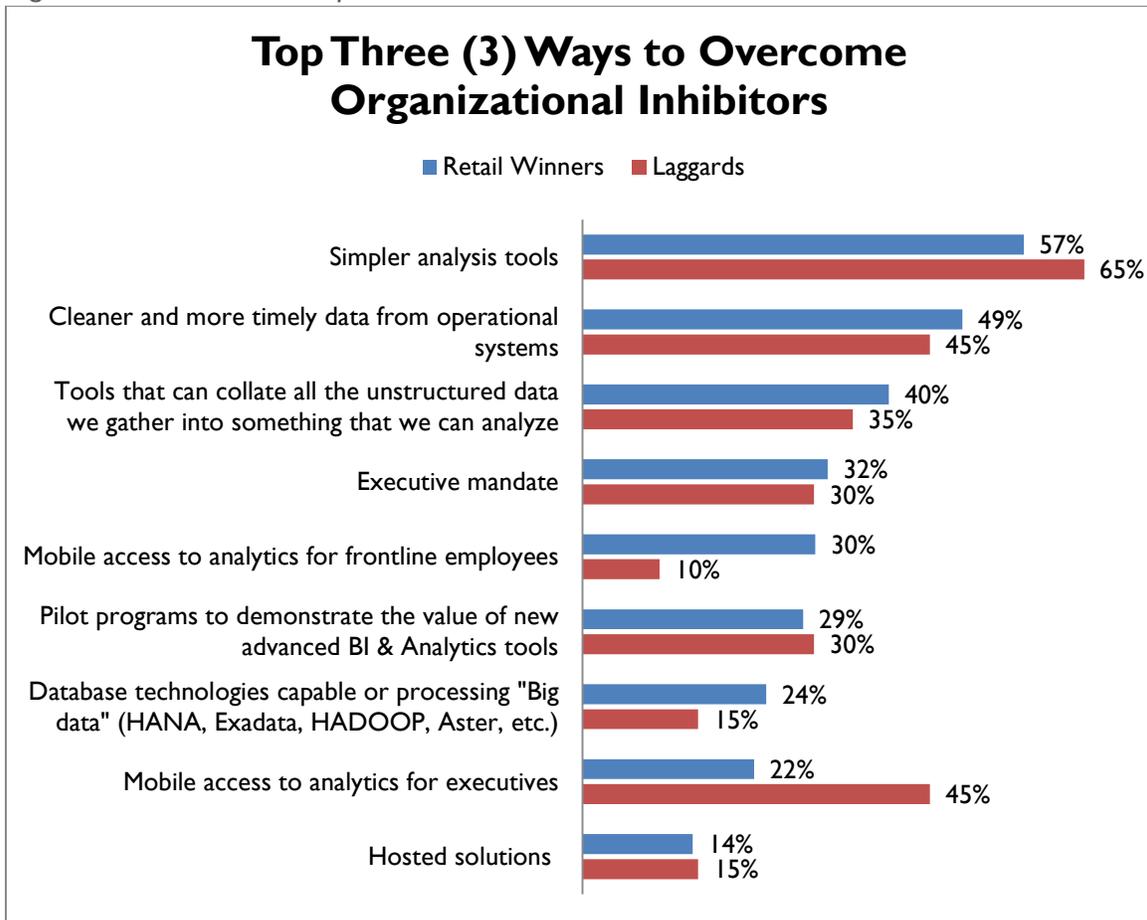
Source: RSR Research, January 2014

Clearly analysis and insights are in the realm of executives and those scarce resources, “designated analysts.” There is strong concurrence among respondents that these insights should filter into the hands of store managers, line managers, employees, and even supply chain partners. Insights must get into the hands of those who can use it. Recognizing this trend was imminent, we named our 2010 Business Intelligence benchmark “The Democratization of Business Intelligence.” Three and a half years later, this has become a clarion call.

### Overcoming Inhibitors: General Agreement

We also see confluence between Winners and Laggards on ways to overcome the inhibitors they face. They generally concur that simpler analysis tools are critical to moving forward (Figure 11).

Figure 12: Give Us Simpler Tools



Source: RSR Research, November 2013

The only major anomalies here are found in the notion of who should get mobile access to data. Winners are keener to get data into the hands of front-line employees – those who really can make a direct impact on results. Laggards are far more interested in getting analytics into the hands of executives. We believe the seriousness of their position make them more prone to elevate decision-making to the executive level. We suspect this may actually act to slow organizational responsiveness as it adds a step in the process. We know they want to also put it in the hands of line personnel, but when forced to prioritize, they'd rather give more data to executives on the go. We believe this may not be the wisest course.

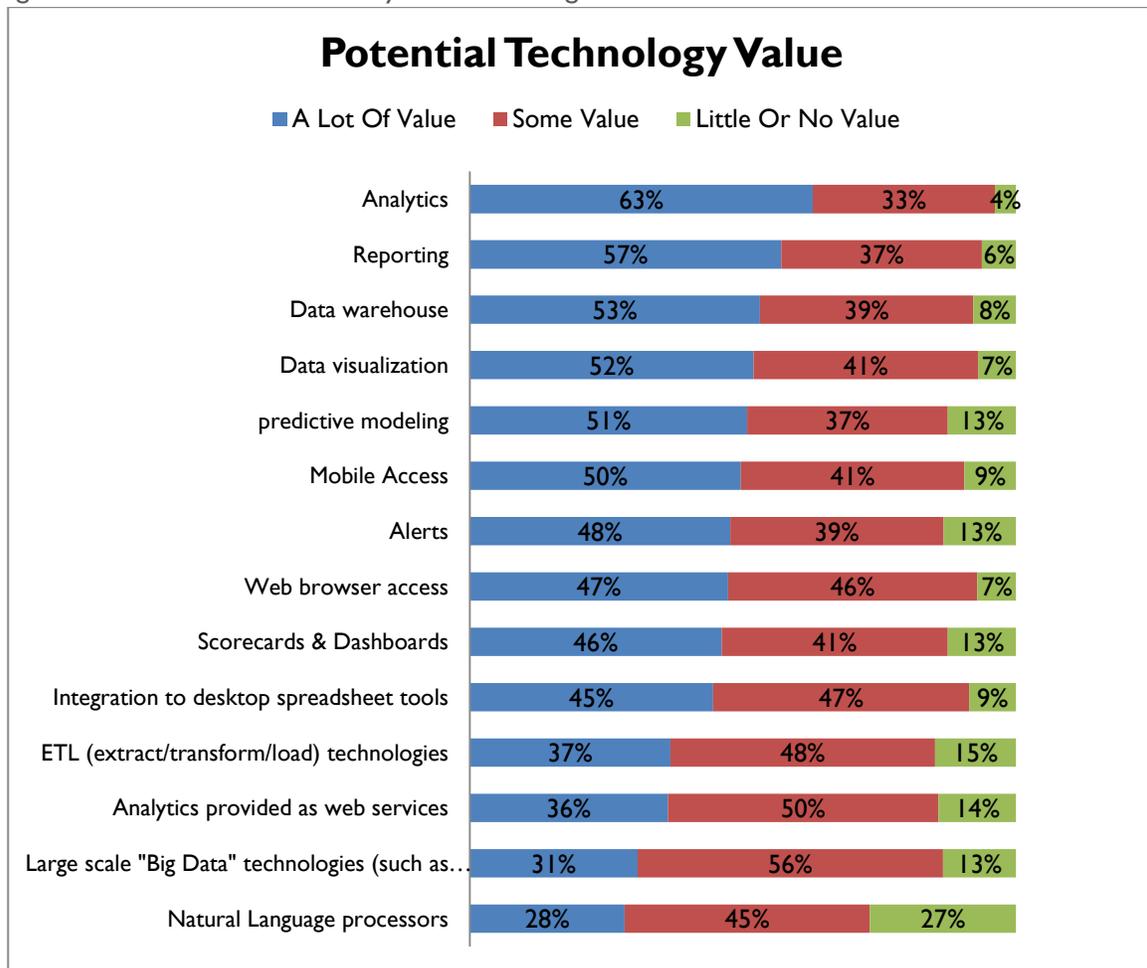
Today's most successful retailers really do empower their employees with information and decision-making authority, and customers notice. Both Apple and Amazon.com Customer Service Representatives are empowered to make very high-value customer-related decisions. Can your organization say the same?

# Technology Enablers

## Democratization of Insights

BI & Analytics has historically been the domain of a very small group of company employees: LOB executives and their direct reports, subject-specific analysts (such as pricing or financial analysts), and IT analysts. The tools of the trade have been data warehouse engines, analytical tools, and reporting capabilities. All of those basic capabilities continue to be valued by retailers today (Figure 13). However, even for the traditional users of BI & Analytics capabilities, there is a desire to expand what they can be used for, particularly with “data visualization” and “predictive modeling”.

Figure 13: What Could They Be Thinking?



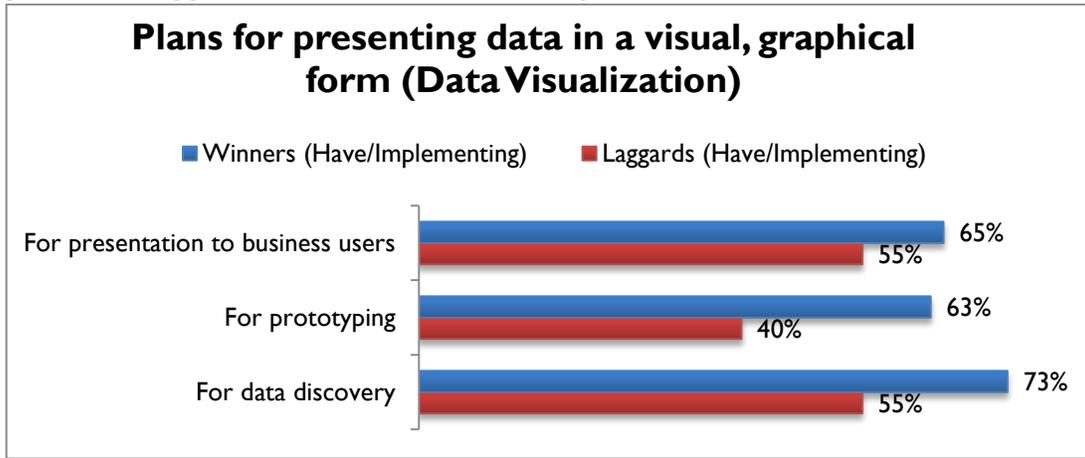
Source: RSR Research, January 2014

Large-scale “big data” engines and natural language processors are relatively new on the scene, and apparently less well understood by retailers. This is a challenge for technology providers who provide such tools; IT technicians may get excited about what the technologies can do and how they do it, but they seem esoteric to the non-technician. Solutions providers and CIOs still have a

lot of work to do to “sell” the value of these next-generation tools. As we’ll see in a moment, even retailers that have implemented some of these technologies don’t necessarily feel that they’ve gotten the value of their investments yet.

It’s a different story for “data visualization”. Although the technologies behind data visualization may be profound, the presentation of results is easy for even the layman to consume. Retail Winners in particular have already made tremendous strides in implementing visual tools for discovering new insights from data collected from operations, prototyping, and for presenting results to non-technical business users. While Laggards also see the value of such tools, they are further behind in implementing them than over-performers.

Figure 14: Laggards Behind in More than Just Sales Results



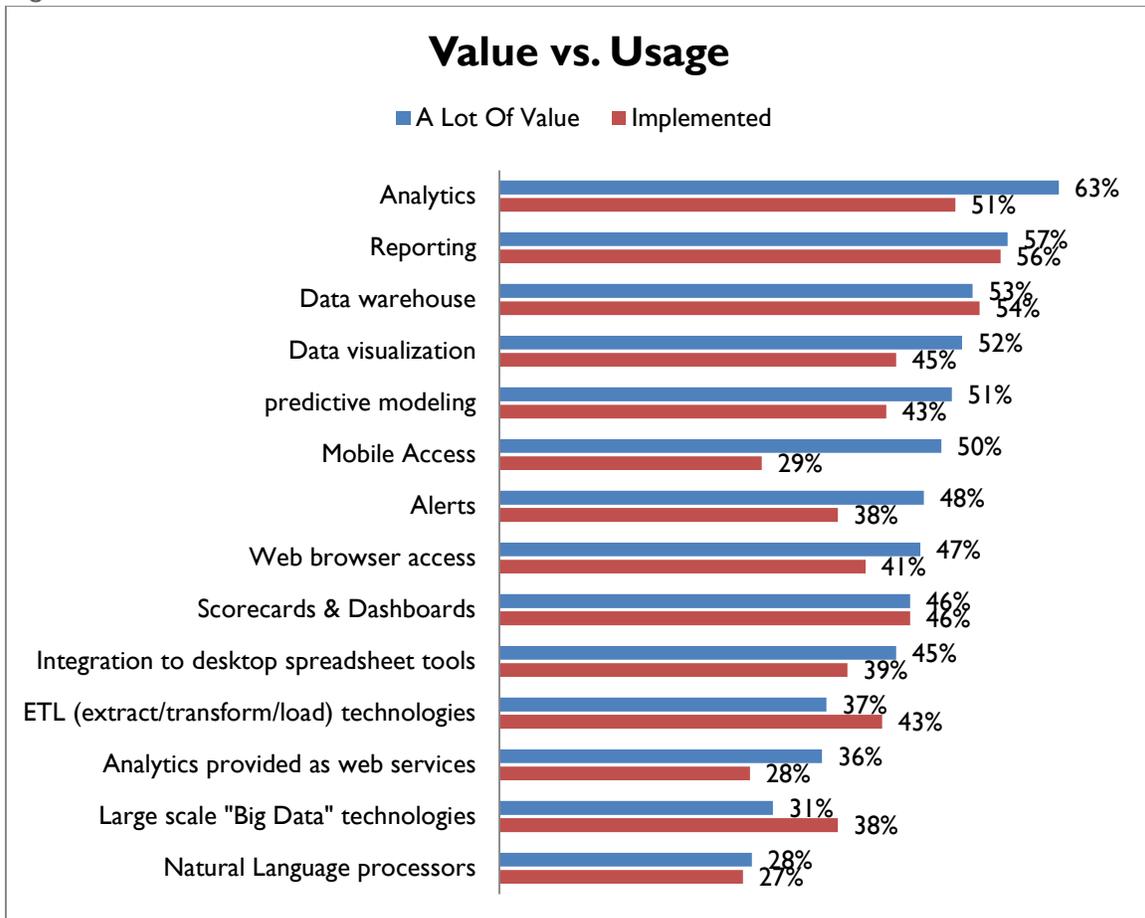
Source: RSR Research, January

But retailers see the value of BI & Analytics technologies moving well beyond the glass house, with tools intended for operational use: mobile access, alerts, web browser access, and scorecards and dashboards. These technologies are not intended to enable new analytical algorithms or even to create new insights, but to deliver insights in actionable form to those who can use them in the operational areas of the business – the selling floor, in the supply chain, and in field operations. As we saw in the Opportunities section of this report, Winners are particularly interested in improving the effectiveness and efficiency of their operations through the use of BI & Analytics, and this is the way to do it.

### Moving Quickly Enough?

With so much value being assigned to most of the BI & Analytics technologies we listed, it’s interesting to see the extent that the technologies are in place and presumably delivering that value today (Figure 15). The status of “basic” BI & Analytics technologies such as data warehouses and reporting track closely to the value assigned, but retailers clearly view “analytics” and “alerts” as potential areas for more investment. And, retailers are especially interested in investing in tools that enable mobile access to insights derived from BI & Analytics. Again, this speaks strongly to retailers’ desire to get actionable information into the operational areas of the company.

Figure 15: Value Seen Is Value Realized

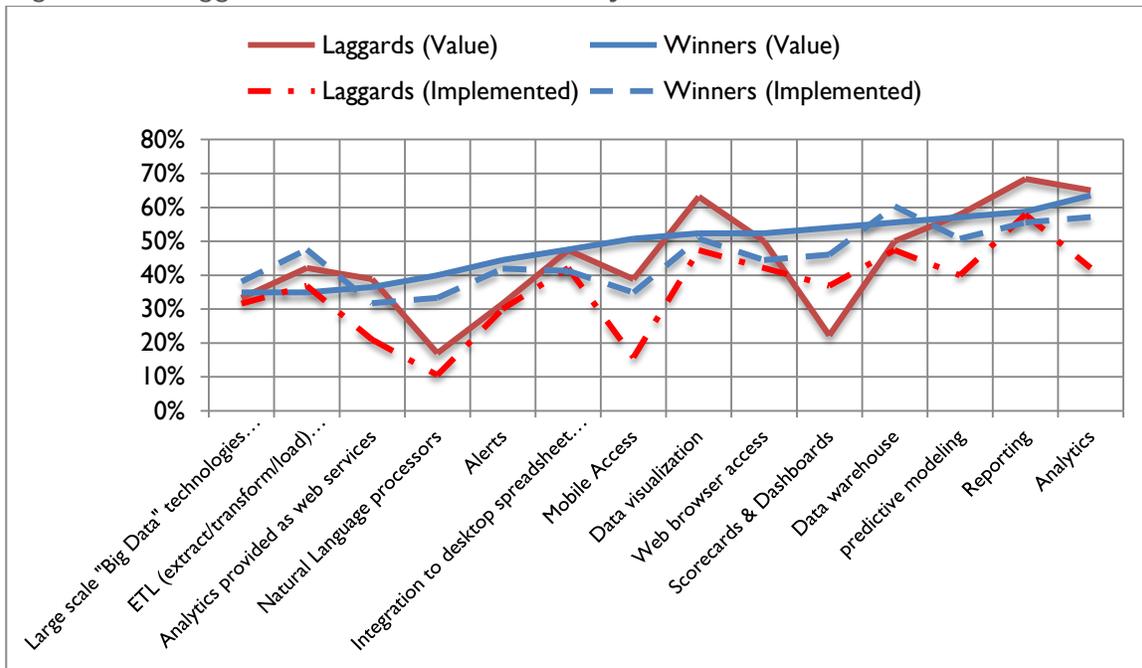


Source: RSR Research, January 2014

Even with the progress noted above however, it's clear that there's much more work to be done to demonstrate the value of BI & Analytics to more retailers. Even something as basic as "reporting" is perceived as "very valuable" by only 57% of retailers surveyed. The implication is that many other retailers are still relying on insights gathered from their transactional systems or are acting on their intuition.

**The use of BI & Analytics tools closely correlates to winning in business.** Figure 16 tells the tale: Winners generally value the technologies more and have made more progress in implementing them than Laggards. And even when Laggards assign greater value to a capability ("data visualization", they haven't gone as far as Winners in actually implementing it. The message is clear: using data and insights derived from analysis is a winning strategy.

Figure 16: Laggards Behind in More than Just Sales Results

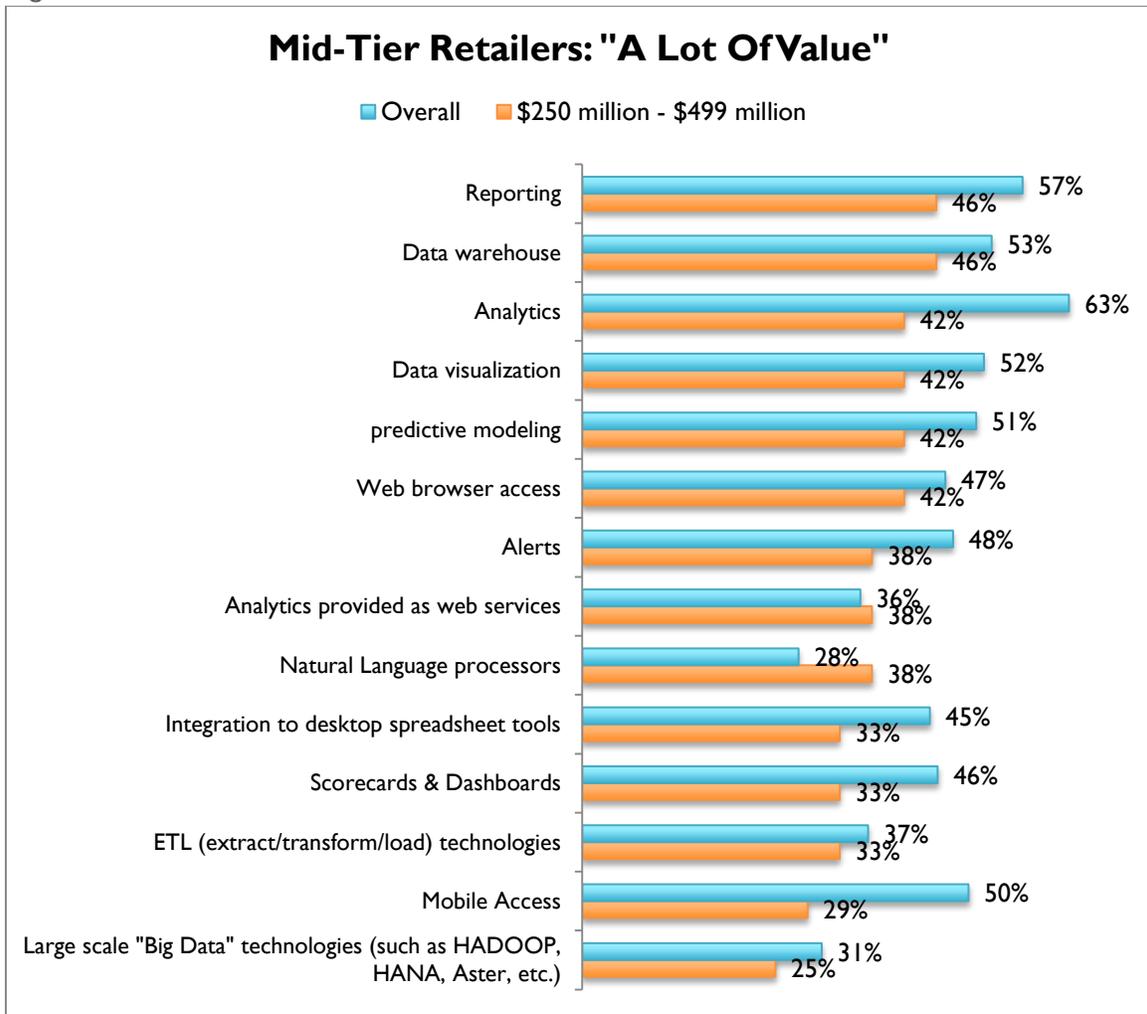


Source: RSR Research, November 2013

## A Challenge And An Opportunity

We observed earlier in this report that the largest retailers are generally more satisfied with their strategy and investments in BI & Analytics. But it would be a mistake to think that using such tools is the exclusive playground for “big” retailers. In fact, there are a variety of products and services available to even very small retailers. So it’s odd that one particular revenue band of retailers (those with annual revenues the equivalent of \$250M-499M) has a much lower opinion of the value of BI & Analytics tools. Across the breath of possibilities, not one technology is regarded as having “a lot of value” by more than 50% of these retailers (Figure 17). Even “mobile access”, currently a hot topic for many retailers, seems very interesting to only 29% of these mid-tiered retailers.

Figure 17: Mid-Tier Retailers' Lament



Source: RSR Research, January 2014

The mid-tiered band of retailers presents a real opportunity – and a challenge - for solutions companies to offer solutions that deliver true business value. Internal thought leaders need to emerge to champion the value of data and insights that create strategic value for the company. That must start (of course) with the CEO, but leaders such as the Store Operations exec, Marketing, and Merchandising, must be speak out as well. But it's a "chicken or an egg" problem: internal leaders need to champion the technology's value, but solutions providers must invest the effort to educate them to the value proposition.

# BOOTstrap Recommendations

## Get On The Enterprise BI Strategy Bus

The use of BI & Analytics tools closely correlates to winning in business. Winners were early into a forward-thinking enterprise BI strategy, and although virtually every retailer “begins again” in this new age of customer-driven retail, Winners show every indication that they won’t just maintain their advantage, but strengthen it. But there is still time to get in front of the opportunity. As this report shows, Many retailers still rely on insights gathered from their transactional systems or are acting on their intuition. But Winners have learned that experience and intuition supported by data is the right formula.

Build the enterprise-wide strategy with constituents from traditional (Finance, HR, Executives) and non-traditional (Merchandising, Supply Chain, Store Ops) departments. You can expect these newer groups will gradually take on usage of the advanced analytics.

## Don’t Just Scorecard The Business

Two capabilities are becoming almost “baseline” expectations for the BI & Analytics toolset that go beyond routine analysis and reporting, are *predictive modeling and data visualization*. These are important capabilities in any effort to “operationalize” the insights generated from analysis; the ability to *predict* a possible condition based on past patterns and current situations creates the opportunity to recommend actions, and the ability to show insights in a easy-to-consume *visual* format makes it possible for more people to get value from those insights.

## The Days Of the “White Coats” Are Over

Retail Winners are moving from a “reactive” stance when it comes to using insights from BI & Analytics to a “responsive” one, meaning that they want to be able to use insights derived from what-if models and current conditions to influence operational situations as they are happening and not after-the-fact. A key to meeting that objective is to make the presentation of those insights easily consumable – visual and simple. By the same token, retailers also seek to make the analysis of data easier too – to be able to understand data relationships much more quickly than in times past (this is another reason why data visualization is interesting to retailers – for data discovery purposes). The days of “white coat” data analysts has passed – the solutions chosen need to lower the cost of both creating the insights and consuming them.

## Mobile-ize it

Key to any strategy for “operationalizing” insights derived from BI & Analytics is a mobile technology strategy for store employees, and particularly store managers.

## Put It All Together

Technologies such as “extract/transform/load” (ETL), natural language processors, and large-scale “big data” engines were given relatively low rankings by our survey respondents. But they are incredibly important to “get right”. The one thing everyone should have internalized from the past several years’ of consumer technology adoption is that new types of data will proliferate and become important to the business. And so the speed, flexibility, and scalability of the business intelligence technology platform are essential. The good news is that the technologies available are impressive.

Think integration tools that simplify extraction and transformation of data from both operational systems and non-transactional data gathered through search, social media, ratings, reviews and consumer commentary as well as customer mobile data such as geo-positioning

### **You Can Afford It**

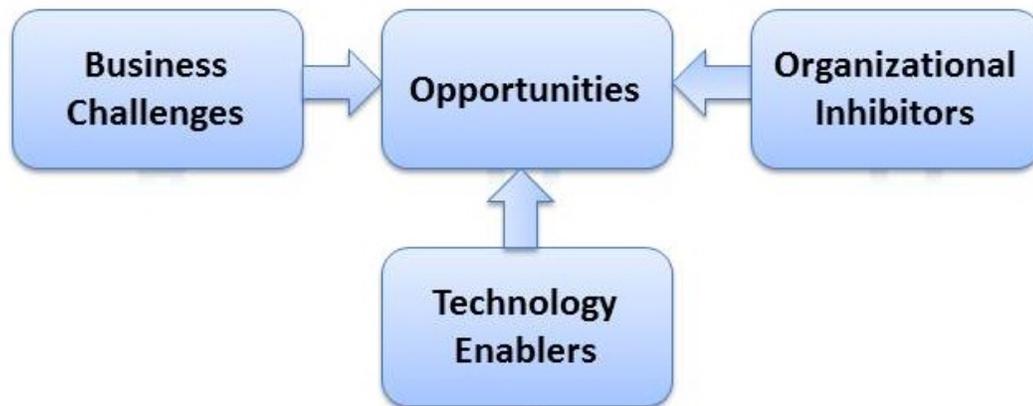
If you can't afford it in your Capex plan, think about on-demand "software as a service" vendors or leasing. BI & Analytics are too important to ignore.

## Appendix A: RSR's BOOT Methodology<sup>SM</sup>

The BOOT Methodology<sup>SM</sup> is designed to reveal and prioritize the following:

- **Business Challenges** – Retailers of all shapes and sizes face significant **external** challenges. These issues provide a business context for the subject being discussed and drive decision-making across the enterprise.
- **Opportunities** – Every challenge brings with it a set of opportunities, or ways to change and overcome that challenge. **The ways retailers turn business challenges into opportunities often define the difference between Winners and “also-rans.”** Within the BOOT, we can also identify opportunities missed – and describe leading edge models we believe drive success.
- **Organizational Inhibitors** – Even as enterprises find opportunities to overcome their external challenges, they may find **internal** organizational inhibitors that keep them from executing on their vision. Opportunities can be found to overcome these inhibitors as well. Winning Retailers understand their organizational inhibitors and find creative, effective ways to overcome them.
- **Technology Enablers** – If a company can overcome its organizational inhibitors it can use technology as an enabler to take advantage of the opportunities it identifies. Retail Winners are most adept at judiciously and effectively using these enablers, often far earlier than their peers.

A graphical depiction of the BOOT Methodology<sup>SM</sup> follows:



## Appendix B: About Our Sponsors

### Predictix

Predictix solutions are helping retailers make better decisions for billions of SKU/location combinations generating \$168 billion in annual sales. We're the foremost provider of predictive analytics solutions for retailers, harnessing the unlimited computing power and elasticity of the cloud to solve the toughest problems in planning, merchandising and supply chain. Predictix applications were designed and built from the ground up to take advantage of big data and the latest high-performance retail science. The results are changing the way leading retailers do business. Our unified decision support platform enables real-time, accurate insights that shape better decisions, improve agility, and reduce risk.

Learn more at [www.predictix.com](http://www.predictix.com).



SAP is the leading provider of application solutions for the retail industry. SAP helps retailers of all sizes to understand, anticipate and inspire their shoppers by providing a compelling shopping experience. The SAP® for Retail solution portfolio provides specific solutions for retail companies in the food, fashion and hardlines businesses. The solution portfolio is built around understanding the shoppers, or Shopper Insight, and consists of building blocks that cover the areas of Merchandise Lifecycle (including planning, merchandise lifecycle pricing and promotion management); Supply Chain (forecast & replenishment, supply chain planning and execution); Shopper Experience (workforce management, customer loyalty and a portfolio of POS solutions); and Corporate Operations (finance and human resources).

Learn more about SAP at <http://www.sap.com/retail/>.

**Supported by:**

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Alteryx is the leader in data blending and advanced analytics software. Alteryx Analytics provides analysts with an intuitive workflow for data blending and advanced analytics that leads to deeper insights in hours, not the weeks typical of traditional approaches. Analysts love the Alteryx analytics platform because they can deliver deeper insights by seamlessly blending internal, third party, and cloud data, and then analyze it using spatial and predictive drag-and-drop tools. This is all done in a single workflow, with no programming required. More than 300 customers, including Experian, Kaiser, Ford, and McDonald's, and 200,000+ users worldwide rely on Alteryx daily.

Visit [www.alteryx.com](http://www.alteryx.com) or call 1-888-836-4274. Alteryx is a registered trademark of Alteryx, Inc

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Manthan serves as the Chief Analytics Officer for global consumer industries. Manthan's portfolio of analytics products and solutions are complete as they enable data-driven analysis, decision-making and execution throughout the retail lifecycle. Manthan's solutions are architected with deep industry expertise, bringing together analytics, technology and industry-practices to provide sophisticated and intuitive analytical capability.

Headquartered in Bangalore with offices in US, UK, Philippines, Dubai, Singapore and Mexico, Manthan has a client footprint spanning 18 countries. Manthan serves the analytics needs of Retail, CPG, Pharma and Market Research industries. Its customers include industry leaders like Sprouts, Love's, Charming Charlie, Teavana, Crocs, Ecco, Ipsos, Novartis, McDonald's, Ripley, SM Group, Robinsons and NTUC Fairprice.

Manthan is a private limited company with global private equity firms like Norwest Venture Partners, IDG Ventures, and Fidelity Private Equity on its board.

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TERADATA

Teradata products and services provide retailers with the ability to analyze, predict and act quickly on big decisions related to market conditions or a variety of little decisions, the kind sales associates encounter with customers daily. Built on the powerful foundation of a Teradata Database, Teradata provides insight into:

Supply and demand patterns so that you can quickly respond to out of stock or overstock situations

Customer segments so that you can better understand who they are and which ones are valuable to your business

Promotions and offers so that you can optimize for higher redemption and response

Assortments so that the you can localize for different markets and customer segments

Key cost drivers in your operation, so that you can operate more efficiently

For more information, please visit <http://www.teradata.com/industry-expertise/retail/>

## Appendix C: About RSR Research



Retail Systems Research (“RSR”) is the only research company run by retailers for the retail industry. RSR provides insight into business and technology challenges facing the extended retail industry, providing thought leadership and advice on navigating these challenges for specific companies and the industry at large. We do this by:

- **Identifying information** that helps retailers and their trading partners to build more efficient and profitable businesses;
- **Identifying industry issues** that solutions providers must address to be relevant in the extended retail industry;
- **Providing insight and analysis** about a broad spectrum of issues and trends in the Extended Retail Industry.

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