



THE FUTURE OF RETAIL IT:
Keys to the Technology Payoff

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INTRODUCTION: QUESTIONING IT

ALTHOUGH NO ONE QUESTIONS A RETAILER'S NEED FOR INFORMATION TECHNOLOGY, RETAIL executives are now asking tough questions about IT, its direction, and its value. Certain executives question if IT is investing in the right areas or focusing on the right issues. Others ask whether or not in-house IT is necessary or if outsourcing may be more appropriate.

The dotcom collapse, coupled with the recent economic downturn, has given retail executives pause and has led many to question the role of IT in their companies. For the most part, these executives have acted as a brake, slowing a panicked dash into poorly conceived Internet retail ventures driven by the fear of being "amazoned."

This paper identifies retail IT challenges organizations will face in the future, examines the areas where retailers can gain real leverage from their IT investment, and highlights strategies for boosting retail IT performance while lowering costs.

Remember, it wasn't retail IT that burned through billions of dollars in investment capital with little to show for it except a cute sock puppet. On the contrary, retail IT organizations have generally acted prudently.

Still, in the aftermath of the dotcom blowout and the downturn in the economy, retailers, like businesses everywhere, are reviewing strategies and processes as they scramble to improve performance and boost bottom-line profits in a difficult economic climate. The questioning of IT spending, strategies, and practices is a critical and necessary part of the process.

Discussions with leading retailers reveal few who foresee near-term funding of the major initiatives described in this briefing paper due to economic challenges. However, during the next five years, many of these initiatives will anchor essential infrastructure and application endeavors. The most important of these include: cross-channel integration; private exchanges; public exchanges; user-controlled, component assembly; pervasive customer relationship management; scientific retail management; personalization; and Web-enabled outsourcing.

No one can predict the future with certainty. However, retailers can help direct the future role of IT in retail by taking time to evaluate challenges and benefits now. This paper is intended to provide a framework for a discussion of future practices within retail organizations. It identifies the retail IT challenges organizations will face in the future, examines the areas where retailers can gain real leverage from their IT investment, and highlights strategies for boosting retail IT performance while lowering costs. It also places key business issues and new technologies on retail IT radar screens. Finally, it analyzes the implications of, provides actionable recommendations to, and suggests how IT may construct and communicate a meaningful return on investment.

The material presented here was gathered through interviews with retail executives and collected from conference presentations and panel discussions at the Retail Systems® 2001 Conference and Exposition. It also incorporates syndicated research collected from a variety of third parties. An advisory board, noted at the end of this document, has helped guide the effort.

EXECUTIVE SUMMARY

The last few years in the retail world have been tumultuous. The emergence of the Internet, the dotcom rise and meltdown, the continued growth of online shopping, and its dominance by conventional retailers, channel conflict, the increasing focus on supply chain management and collaboration, and the hasty retreat of online exchanges have fueled upheaval in the retail world. Out of this upheaval, one conclusion holds fast: The Internet is here to stay and will grow in importance, underpinning future retail infrastructure and, possibly, opening new sales channels. The primary challenge is learning how to take advantage of it.

A turmoil, such as this, leaves many retail IT executives asking what comes next. For retail IT, two sets of issues have been identified. The first investigates the role of IT within the retail organization. The second addresses financial issues surrounding the IT investment.

Clearly, the role of IT is in transition. Originally, it was considered a classic support function, a cost center intended to deliver the required service level while minimizing expense. In recent years, however, IT has evolved into a change agent and strategic enabler. Now, IT has the potential to emerge as a profit center, opening new markets, new channels, and new revenue opportunities for the retail organization.

Because the driving financial issue involves return on investment (ROI), retail executives are looking to justify every IT investment in terms of its pay-back, an effort that has led to a reallocation of these resources into initiatives with the quickest return. Projects that directly result in cost savings or are directly tied to immediate revenue generation are moving ahead. Another metric, return on opportunity (ROO), considers the potential of new IT initiatives to create new sources of revenue and growth.

Originally, IT was considered a classic support function, a cost center intended to deliver the required service level while minimizing expense. In recent years, however, IT has evolved into a change agent and strategic enabler.

Meanwhile, a better understanding of the customer has emerged as the key to retail success. As a result, many retailers have begun to investigate how, if at all, IT will play new and critical roles in extracting maximum value from the customer relationship. Much of the IT effort focuses on capturing, analyzing, and disseminating information about the customer and customer activity for use by a wide range of corporate users, from marketing and merchandising executives to buyers and assortment planners. Eventually, retail IT could rally retailers and suppliers around a common set of customer metrics.

Business issues loom large on the retail IT radar screen. Of top concern are Internet commerce; supply chain management and collaborative planning, forecasting and replenishment; customer relationship management; application acquisition; information-based management; business process standards; outsourcing; and ROI optimization and measurement.

At the same time, a wide range of issues and new technologies clutter IT's technology radar screen. These include wireless/mobile computing, knowledge management, radio frequency ID (RFID), electronic shelf labeling (ESL), open source systems, software services, directories, new technical standards, application development, legacy system integration, technology architecture, security, privacy, customer support, outsourcing, and data storage. In an effort to contain IT costs, organizations can leverage the increasing power of systems to deploy self-sustaining, self-correcting, and self-healing systems. These systems will not only reduce maintenance costs but will increase the organization's responsiveness and agility.

However, before retail IT can move ahead during the next five years, it must confront a number of difficult questions. These address a range of issues from the role of technology in retail to how a retail organization can differentiate itself and make money in the future. Retail IT, as a result, must resist pressures to return to its previous role as a support function only. Instead, it must look for quick strategic wins, build a compelling case for IT-enabled opportunities, focus on the customer, address privacy concerns, and participate in standards initiatives. It may even opt to selectively outsource low-value, low-payback responsibilities.

In the end, retail IT can construct a compelling business case based on cost savings, risk reduction, and increased business opportunity. However, fostering business transformation, ultimately, may prove to be IT's biggest contribution to the retail organization.

BACKGROUND: A TUMULTUOUS RETAIL ENVIRONMENT

The retail industry is undergoing a self-analysis about its role, purpose, and influence in society. Spurred on by the novelty of Internet-based selling and a period of highly volatile economics, retailers are looking for new business enablers, partnerships, and channels to ensure stable, consistent profit growth.

Despite the highly deflated dotcom industry, Internet shopping continues to grow. Dell Computer has risen to the top of the PC retailing market by utilizing Internet messaging, archiving, and transaction capabilities to support its direct-marketing model. This combination of sales technique and technology has enabled Dell to best numerous and formidable competitors such as Compaq and Gateway along the way. The profitability question aside, Amazon.com still manages to conduct billions of dollars in retail sales and has become a valued partner of established retailers such as Toys R Us, Borders, and Target, as well as a technology supplier to new sales channels such as AOL. eBay, the hybrid of newspaper classified ads and auctions, utilizes the Internet to sell a startling range of products using dynamic and competitive pricing. In the process, eBay generates over \$500 million for itself and, indeed, turns an actual profit.

Furthermore, conventional retailers like Staples, Wal*Mart, Kmart, and Target are now consistently leading the Internet retailing pack, racking up millions in sales and huge volumes of visitor traffic. Retail executives who consider the Internet a temporary retail fad are as mistaken as those who feared it would mean the quick end to conventional retail. The Internet is here to stay and will grow in importance as a retail opportunity. The first task remains how to take advantage of it.

The Internet, however, is not the sole factor revolutionizing retail. Consumers and consumer behavior also drive the retail industry. Consumer behavior, whether fickle or spendthrift, has often added to the tumult in the retail industry. Consumer spending fueled the nation's longest running economic boom and has prevented the current downturn from sliding into deep recession. Thankfully, consumers continue to spend, baffling economists who predicted that corporate layoffs, a depressed stock-market, and terrorist attacks would cause them to close their wallets.

Channel competition also contributes to upheaval in the retail industry and extends beyond the competition between conventional and catalog retailers. Today, every major retailer is also an Internet retailer and finds itself needing to manage the customer across multiple channels. At the same time, customers are adopting cross-channel shopping behavior, utilizing stores, interactive voice ordering, cable television, the Internet, and kiosks. The entire retail experience - comparison-shopping, selection, pricing, the purchase itself, returns, and service - is now conducted across all channels simultaneously.

Turmoil in the retail market is also created by supply chain challenges. The business-to-business (B2B) market witnessed an explosion of online marketplaces and their rapid collapse, with hundreds announced and very few succeeding. This led retail executives to doubt the value of supply chain information management initiatives.

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RETAIL IT ISSUES: A LOOK AT FUTURE PRACTICES

This turmoil leaves many retail IT executives pondering the future. For retail IT, we have identified two sets of issues. The first set focuses on the role of IT within the retail organization. The second set addresses financial issues surrounding the IT investment.

As we have discussed, the role of IT is in transition. Traditionally considered as a classic support function, retail IT has now assumed the role of a strategic enabler. This new role has partially developed as an outgrowth of the Internet. Previously, top management IT executives were challenged to lead initiatives that capitalized on emerging technologies, particularly new networking technologies such as the World Wide Web. These initiatives addressed both the supply side and the sell side of the retail equation and were expected to produce tangible financial returns. In addition, it was required that IT executives be knowledgeable in both technology and in retail business. Today's most successful domestic and international retailers such as Home Depot, Staples, Wal*Mart, Metro, and Tesco regard the IT organization as a strategic partner, not only supporting existing operations and processes, but also enhancing business results by leveraging technology.

The focus on ROI has not halted IT investment, retail IT executives report, but instead places greater emphasis on initiatives with a quicker payback.

Looking ahead, retail IT has the potential to evolve into a true profit center by using technology such as the Internet to generate revenue. This could take the form of a business-to-consumer (B2C) Web site, a B2B portal, a private online exchange of application service providers, or as something completely different. Other new revenue-generating initiatives such as improved store systems and merchandise management may require the leveraging and dissemination of the massive volumes of information that retailers are positioned to capture and distill.

On the financial front, the driving issue is ROI. Faced with an economic downturn, slowed consumer spending, and even falling share prices, retailers are rightfully counting every penny. The focus on ROI has not halted IT investment, retail IT executives report, but instead places greater emphasis on initiatives with a quicker payback. Projects that directly result in cost savings or are tied to quick revenue generation still receive the go-ahead.

Meanwhile, research organizations report that IT spending growth continues, albeit at a slower pace. Gartner projected a 10 percent growth in US corporate IT spending for 2001. International Data Corp. (IDC) took a slightly less optimistic view, but still projected a nearly 7 percent IT spending increase over last year. In the wake of the September 11 terrorist attacks, and the possibility of a protracted war on terrorism, these figures are being revised downward. Some early revisions have reduced this year's annual IT spending increase approximately 3.5 percent, but all financial projections in these uncertain times must be taken with the proverbial grain of salt.

Retailers willing to invest in technology can now negotiate better licensing deals with software suppliers, many of whom are driven to report consistent cash flow and profits to investors and shareholders. This new negotiating environment promises to better align the cost of IT software and hardware with its direct contribution to the

bottom line. Service providers, including top-tier consulting firms, are also struggling with a glut of capacity and are now more flexible on pricing. In the end, this market rationalization will encourage closer working relationships between retailers and their IT suppliers, resulting in improved implementations, greater trust, improved confidence, and increased investments in both tactical and strategic IT.

Where strategic IT projects are unable to generate a quick or easily calculated ROI, analysts suggest looking at return on opportunity (ROO). Though difficult to quantify and less tangible than ROI, ROO analysis attempts to quantify the future returns from longer-term and more speculative IT projects. This analysis examines the potential payoff and the likelihood of achieving it. Such payoffs might include encouraging business transformation, reaching a new market segment, or opening new and unexpected sources of goods. In short, it identifies a new, unproven opportunity and attempts to place a value on it. Retail IT organizations that try to follow a profit center approach will need to use ROO analysis, as some of their initiatives will likely break new ground. This new ground will support new store formats, channels, and relationship practices with customers and suppliers.

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RETAIL IT AND THE CUSTOMER: LEVERAGING THE RELATIONSHIP

The retail business begins and ends with the customer. When retail IT served simply as a back-room support function, it had little direct impact on or contact with the customer, beyond keeping the POS system up and running.

Today, however, retail IT may have frequent and extensive contact with customers, through the POS system, credit card payment processors, call centers, and Web applications. It is also the best-positioned group within the retail organization to capture information about customers and consumer behavior.

Specifically, retail IT plays a central role in the following customer activities:

- capturing customer behavior;
- identifying customers as individuals;
- personalizing targeted messages and offers;
- handling customer payments, credit, and fraud; and,
- enhancing customer service/self-service.

The payoff comes when retail IT leverages the information it captures through customer contact and shares it with other internal and external parties involved in the retail process. This includes:

- sharing information with suppliers for CPFR® and other supply chain management and collaborative product development initiatives;
- sharing information with internal merchandising executives about merchandise turns and promotion response rates;
- sharing inventory and sales data with planners and allocators for replenishment, assortment planning and optimization, and collaborative product design and development; and,
- sharing financial, item, and promotion performance information with store operations personnel.

In addition, retail IT captures and processes extensive data that can be leveraged to improve and enhance general corporate procurement, supplier performance management, and logistics management.

RETAIL BUSINESS RADAR SCREEN *(continued next page)*

The following table highlights key IT-related retail business concerns during the next five years.

BUSINESS ISSUE	CURRENT STATUS	FUTURE DIRECTION
Internet Commerce	<ul style="list-style-type: none"> • B2C disappointment • limited B2B • information orientation • augmentation of sales • complementary service • incremental new revenue • channel centric profit orientation 	<ul style="list-style-type: none"> • full-fledged sales channel • integrate with other channels • proactive customer service • extensive customer information capture • supply chain integration • customer-center profit orientation
Supply Chain Management	<ul style="list-style-type: none"> • multiple one-to-one relationships • piecemeal automation • limited integration • failed online exchanges 	<ul style="list-style-type: none"> • private exchanges • many-to-many relationships • tight integration with business processes • comprehensive standards • interoperable, shared systems • collaborative forecasting
Customers	<ul style="list-style-type: none"> • isolated CRM initiatives • call center focus • inconsistent loyalty practices • low acceptance of kiosks 	<ul style="list-style-type: none"> • customer service management • customer retention management • customer appreciation management
New Channels	<ul style="list-style-type: none"> • B2C disappointment • brick & click integration • brick & catalog (slick) success • full-fledged integration 	<ul style="list-style-type: none"> • proactive customer contact • supply chain integration
Planning and Allocation	<ul style="list-style-type: none"> • fragmented merchandising organization • limited integration with forecasting systems • new scalable systems 	<ul style="list-style-type: none"> • use of forecasting tools • built-in analytics • internet access • retailer-supplier collaboration

RETAIL IT BUSINESS RADAR SCREEN *(continued from previous page)*

BUSINESS ISSUE	CURRENT STATUS	FUTURE DIRECTION
Application Acquisition	<ul style="list-style-type: none"> • proprietary systems • standalone applications • costly development • inflexible licensing 	<ul style="list-style-type: none"> • open, standards-based systems integrated applications • easily scalable systems • service-based licensing models
Information-based (scientific) Retail Management	<ul style="list-style-type: none"> • limited usage • too much/too little data • incorrect, inappropriate data • lack of training/experience 	<ul style="list-style-type: none"> • just-in-time information • personalized data delivery • automated expert analysis • comprehensive analytics • AI markdown management tools • price optimization
Information Sharing	<ul style="list-style-type: none"> • highly limited • suspect • lack of verification • lack of trust • limited integration of systems • security worries 	<ul style="list-style-type: none"> • collaboration with trusted partners • automatic verification of shared information • broad-based system-to- system sharing • improved security practices (crypto/firewalls)
Standards	<ul style="list-style-type: none"> • too many/too few • conflicting standards • technical, not business focus • continued proprietary impulse • low adoption rates 	<ul style="list-style-type: none"> • open standards • business process standards • industry-defined sets of standards
Outsourcing	<ul style="list-style-type: none"> • inconsistent results • questionable long-term savings • difficult vendor management • lack of control, flexibility • unpredictable vendor longevity 	<ul style="list-style-type: none"> • new outsourcing models (Internet-based service providers) • flexible pricing strategies • integrated insourcing-outsourcing
Return on Investment (ROI)	<ul style="list-style-type: none"> • focus on immediate cost reduction • reduction of total cost of ownership • improvement of productivity 	<ul style="list-style-type: none"> • focus on revenue enhancement, new revenue • increasing value • return on opportunity (ROO)
Value Chain Management	<ul style="list-style-type: none"> • web enabled software tools 	<ul style="list-style-type: none"> • extended enterprise • common planning practices

RETAIL IT RADAR SCREEN *(continued next page)*

The following table highlights retail IT technologies and technical issues that will play a key role in achieving ROI and ROO during the next five years.

TECHNOLOGY ISSUE	CURRENT STATUS	FUTURE DIRECTIONS
Store Systems	<ul style="list-style-type: none"> • extensive modifications required • lack of financially viable vendors • viewed as cost-center • costly integration between in-store applications and back-office systems • dated proprietary architectures • device-specific s/w drivers 	<ul style="list-style-type: none"> • XML application • application standards • evolving role in collaborative business models • greater retailer control • significant integration with other channel devices • new open, vendor-neutral architectures • XPos vs. POS architecture
Wireless/Mobile	<ul style="list-style-type: none"> • primarily use within warehouse (logistics) 	<ul style="list-style-type: none"> • proactive customer alerts • personalized customer service • in-store wireless (paging, inventory POS) • “line busters” and smartcarts
Knowledge Management	<ul style="list-style-type: none"> • data warehouse • data mining • market segmentation 	<ul style="list-style-type: none"> • integrated 360 customer view • personalization
Radio Frequency ID (RFID)	<ul style="list-style-type: none"> • limited warehouse use • first-generation products • price per tag too high • initial tests in stores 	<ul style="list-style-type: none"> • widespread adoption to streamline operations • standards • replacement for paper-based systems • used for cradle-to-grave product tracking • integrated into electronic article surveillance systems • supported by Uniform Code Council global digital product ID standards
Electronic Shelf Display	<ul style="list-style-type: none"> • second-generation introduced • high acquisition costs 	<ul style="list-style-type: none"> • integration with back-end systems • tying to in-stock position
Open Source Systems	<ul style="list-style-type: none"> • primarily Linux in infrastructure roles 	<ul style="list-style-type: none"> • steady growth of open systems • adoption and support by major vendors
Software Services	<ul style="list-style-type: none"> • nascent technology concept • products in development (such as Microsoft.Net) 	<ul style="list-style-type: none"> • new application acquisition and deployment models • new licensing models • slow acceptance (may not materialize as envisioned)

RETAIL IT RADAR SCREEN *(continued from previous page)*

TECHNOLOGY ISSUE	CURRENT STATUS	FUTURE DIRECTIONS
Directories	<ul style="list-style-type: none"> • complicated, costly, disruptive implementations • questionable ROI • proprietary tools • vendor lock-in 	<ul style="list-style-type: none"> • standards-based directories • cross-platform directory interoperability • multi-directory coexistence • solid ROI case
Technology Standards	<ul style="list-style-type: none"> • core standards in place • TCP/IP, HTTP • Java, C, C++ 	<ul style="list-style-type: none"> • new standards emerging • XML, SOAP, ebXML • improved, streamlined standards process
Application Development	<ul style="list-style-type: none"> • increasingly complex applications • high cost • buy versus build debate continues • poorly documented source and modification 	<ul style="list-style-type: none"> • high-level tools • rapid development • component-based application assembly • applications as network services • lightweight development methodologies • complex adaptive software
Legacy System Integration	<ul style="list-style-type: none"> • proliferation of costly middleware • point-to-point integration • difficult to maintain, change • extensive unused data 	<ul style="list-style-type: none"> • standards-based integration • extensive use of XML • middleware incorporated into operating systems and infrastructure
Networks	<ul style="list-style-type: none"> • multiplicity of networks • limited store connectivity • fragmentation 	<ul style="list-style-type: none"> • convergent networks • broadband to stores • integrated end to end • automated management processes
Technology Architecture	<ul style="list-style-type: none"> • vendor-driven • platform-specific 	<ul style="list-style-type: none"> • open architecture • standards-based
Security	<ul style="list-style-type: none"> • rudimentary • costly/cumbersome • proliferation of point products from multiple vendors 	<ul style="list-style-type: none"> • end-to-end security • built into every system and application • directory-based • certificates from trusted independent third-parties
Privacy	<ul style="list-style-type: none"> • ignored in practice • token, unenforced privacy policies 	<ul style="list-style-type: none"> • priority among consumers • key differentiator for forward-thinking retailers

RETAIL IT RADAR SCREEN *(continued from previous page)*

TECHNOLOGY ISSUE	CURRENT STATUS	FUTURE DIRECTIONS
Outsourcing	<ul style="list-style-type: none"> • few long-term success stories • difficult to manage • questionable payback 	<ul style="list-style-type: none"> • new models (ASP, MSP, SSP) • insourcing/outsourcing combination
Storage	<ul style="list-style-type: none"> • represents 50 percent or more of IT capital spending • primarily JBOD (just a bunch of disks) 	<ul style="list-style-type: none"> • network storage (NAS, SAN) • long-term enterprise ROI • server attached • poor capacity utilization

THE RETAIL WHITE BOARD/BLUE SKY OPPORTUNITY: SELF-SUSTAINING SYSTEMS

To help retail IT deliver technology benefits while containing costs, organizations will tap the capabilities and intelligence inherent in the systems themselves. Recent advances in systems and network management tools, advanced help desk systems, component-based technologies, and Internet-based management services already demonstrate the potential of proactive, highly automated management.

For instance, what was long considered the lowly help desk has emerged as a center of valuable operational information captured in the process of assisting workers with systems problems. New help desk systems are capable of accelerating the resolution of technical problems related to software, hardware, and infrastructure, and of providing a growing set of information capture and analysis tools that help executives understand and improve operational procedures and training. The systems also offer valuable feedback to IT itself for use in designing, developing, and deploying new systems. This is the kind of information that, when used appropriately, can produce a quick and attractive ROI.

The following capabilities exemplify areas of growth that are possible as systems continue to take advantage of built-in intelligence, processing, and analytical functionality:

- 1. Programming and business transformation synchronization.** These systems are capable of translating high-level descriptions of business process changes into systems modifications that support those processes, thus enabling rapid, programming-free business process change.
- 2. Self-correcting/healing (adaptive) systems.** These systems recognize failures and automatically respond by resolving the problem and resuming the process without loss of information.
- 3. Self-assembling systems.** These component-based systems are programmed to search the network for the latest components required to perform a task, and to collect and coordinate those components to performance of the task.
- 4. Consumer-driven systems development.** These self-assembling systems are guided by real-time customer input to produce the ultimate in customization and personalization.
- 5. Self-configuring systems.** These directory-based intelligent systems recognize the systems user, know what the systems user is tasked to do, and automatically assemble the appropriate tool set, customized to the task and the user's preferences.
- 6. Proactive, self-inspecting ('seeing-eye-dog') systems.** These real-time systems continuously monitor processes and additional systems to catch and correct potential problems before they impact a business process or a customer.

Although these systems reflect blue-sky thinking today, the technologies to create them already exist. As such systems come online, the retail IT organization will use them to substantially reduce costs and boost service levels beyond today's practical limitations.

RETAIL IT CHANGE DRIVERS

A number of factors are forcing retail IT to change. The following table looks at critical change factors in four areas: technology, operations, culture/organization, and governmental or centralized regulations.

AREAS DRIVING CHANGE	CRITICAL CHANGE FACTORS
Technology	<ul style="list-style-type: none"> • internet • telecommunication/mobile communication • rapid technical advances • intelligent systems/infrastructures • open systems • new standards • increasing complexity • extended reach of systems • new architectures, models • single enterprise network • web of networks
Operations	<ul style="list-style-type: none"> • new/more partners • multiple channels • collaboration • financial pressures • fluctuating job market (affordable skills availability)
Culture/Organization	<ul style="list-style-type: none"> • sharing, trust • customer focus • ability to absorb information • need for speed, agility • resistance
Governmental and Centralized Regulations	<ul style="list-style-type: none"> • privacy • taxation • full disclosure • anti-trust • free trade • human rights • labor standards • environmental standards

IMPLICATIONS AND ANALYSIS

The last several years have been a roller coaster ride for retail IT. Huge sums of money have been invested in IT projects such as Y2K fixes, new infrastructure and applications, and industry exchanges. Yet the sudden and rapid rise of the Internet, the dotcom B2C mania and crash, and the general, technology-led economic downturn have left retail executives questioning the role and value of IT. The future appears to be filled with uncertainty.

Despite this uncertainty, retail IT executives can present a compelling case for continued in-house retail IT investment. The key is for executives to clearly establish ROI for each project (See the Three Pillars of Retail IT ROI for details). To make that case, however, IT executives must confront and address a number of vexing questions.

What is the role of IT in the retail organization?

Traditionally, IT has played the faithful role of support function, a cost center dutifully performing information and transaction processing chores for the organization. In the future, retail IT executives will need to take on the far more valuable role of strategic change enabler, using technology to generate new revenue. During this process, they may choose to outsource some of the routine, lower-value support processing that they previously performed in-house.

How will the retail organization make money in the future?

Driving down costs through automation has been the proven path to profitability in the past, but at some point the cost of achieving greater efficiency or productivity exceeds the incremental gain. Instead, organizations will make money by better handling the customer at every step in the retail experience. Here, IT can play a key role in acquiring and retaining customers, delivering personalized service, and providing the information necessary to maximize lifelong value from the customer relationship.

How does a retailer differentiate itself in the market?

Each market has room for only one low-price leader. Beyond that, retailers can differentiate themselves by how they treat their customers. Each retailer could take the lead in the formation and operation of “virtual consumer response networks.” These networks will leverage technology to coordinate and disseminate information about products and consumer lifestyles among customers. As noted above, IT plays a key role in enabling customer-focused initiatives such as this.

How does IT satisfy its internal customers?

With the development of interactive and proactive IT operational practices, IT departments will satisfy corporate end-users most effectively by enabling them to aggregate productivity gains to enhance their companies’ competitive edge. Aggregated productivity gains will lead to dominance in the marketplace. It will be possible to accomplish this by streamlining the supply chain, enabling collaboration, making information readily accessible, and efficiently managing logistics. By leveraging an Internet-based infrastructure, retail IT can ensure the satisfaction of internal managers and store personnel. At the same time, it can streamline and manage logistics and other business processes with outside suppliers.

What is the value of partnerships between retail IT and business managers?

The development of on going partnerships between retail IT developers and business executives will guarantee targeted and proactive innovation in retail IT functionality. The business executives and other corporate IT users are those best able to evaluate the effectiveness and weaknesses of IT systems. Business executives' vested interest in the continued development of effective IT systems translates into direct continued funding in retail IT implementation. Through this partnership, retail IT developers will deliver required and essential maximum functionality. In short, innovation is a shared responsibility.

What will retail systems look like in the future?

To deliver the kind of speed, agility, flexibility, reliance, and price/performance required, retail IT will have to evolve into an open, proactive, self-adapting systems environment. It will be standards- and component-based, and services-oriented. Retail IT itself will balance in-house and outsourced capabilities. Internet support will play a key role in allowing the retail organization to extend itself to suppliers, partners, and, most importantly, to customers.

RECOMMENDATIONS

The following recommendations were compiled from interviews with retail IT executives and from industry leaders participating in retail industry events and forums.

- 1. Don't retreat.** Resist pressure to return to the support function role as part of an effort to cut expenses and overhead.
- 2. Look for quick wins.** Identify and pursue strategic opportunities in areas where the organization can capture a fast return.
- 3. Build the ROI case for new IT-enabled opportunities.** Use a combination of hard and soft benefits to make a compelling business case for IT investment. Use ROO for projects heavily dependent on 'raft' benefits.
- 4. Go slowly.** Being first has proven to offer little sustained advantage. Evaluate fully each IT investment and levels of customer satisfaction. Do it best, not necessarily first. That said, it is critical to standardize all industry best practices before your competition does.
- 5. Don't go it alone.** Look for standards, work with other retailers to develop standards, and then make sure to use them.
- 6. Abandon losing initiatives.** If something isn't working, drop it. Cut your losses and move forward.
- 7. Leverage previous IT investments.** There is still substantial untapped value sitting in data warehouses, Web sites, and other systems. Redirect and mine those systems wherever possible.
- 8. Selectively outsource.** Let go of low-value, low-payback responsibilities to concentrate on delivering greater value and enabling strategic opportunity.
- 9. Don't underestimate resistance to change.** IT executives must learn to embrace and lead sensible change, while continuously educating others. Cross-functional cooperation becomes more important as these systems are developed and implemented.
- 10. Focus on the customer, but don't ignore the supply chain.** The relationship with suppliers is key to satisfying customers. Pay careful attention to the supply chain as missing, interpreted, or unwanted goods reduce customer acquisition and satisfaction.
- 11. Take privacy seriously.** Certain research surveys suggest consumer concerns about privacy are overblown. Research, however, can be deceiving. Respect consumers' privacy with the same trust they exhibit through continued patronage.
- 12. Integrate across the enterprise.** Retailers invested in new Web-infrastructures that democratize software functionality throughout their organizations have created new opportunities. These opportunities translate into reduced headcount and improved customer interactions.

THREE PILLARS OF RETAIL IT ROI

For retail IT, proving ROI for each and every project has become the top priority. Classic ROI analysis is based on three pillars: cost reduction, risk reduction, and business opportunity or enablement. Retail IT can present a very compelling business case built on these three pillars:

- 1. Cost reduction.** IT systems that automate business processes, increase worker productivity, and increase the efficiency of the supply chain all deliver tangible, measurable savings that improve the bottom line.
- 2. Risk reduction.** IT addresses risk reduction by delivering highly reliable, secure systems. In addition, IT can manage new initiatives in proven ways that reduce risk, such as using open, standards-based technologies.
- 3. Business opportunity/enablement.** In its role as strategic leader, IT can leverage technology to open new markets, attract new customers, and offer new ways of generating or optimizing revenue.

The biggest payback IT can deliver, however, comes not from any specific technology but from its role as a change agent. As a change agent, IT can use technology to enable broad and deep business transformation. Ultimately, this business transformation - the ability and willingness to change in the name of maximizing ROI and customer retention - is the key to sustaining competitive advantage over the long haul.

APPENDIX: FUTURE OF RETAIL IT ADVISORY BOARD

Grant Anderson, Director, Store Systems	Garden Ridge
Larry Buresh, SVP/CIO	CSK Auto
Gene Cornell, President	Cornell-Mayo
Terry Donofrio, President	Retail Systems & Services
Stephen Du Mont, Global Managing Director, Retail/CPG.....	Cisco Systems
Ron Griffin, EVP/CIO	Fleming Companies
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Phil Wilkerson, Director, IS	The Home Depot
Percy S. Young, Director, Store Systems.....	Burlington Coat Factory



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