

A guide from SelfServiceWorld.com

# Self-Checkout



**INSIDE:** Self-checkout has revolutionized retail by putting the “last mile” of the transaction in the hands of the shopper. In this exclusive guide, you will learn how this technology can improve the customer experience, increase sales and drive profitability.

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**Page 3**      **About the sponsors**

**Page 4**      **Chapter 1**      |      **The basics of self-checkout**  
*How it works*  
*Who it works for, and who it doesn't*  
*Case study: Giant Foods*

**Page 9**      **Chapter 2**      |      **Self-checkout in depth**  
*Hardware options*  
*Software options*  
*Integration with loyalty programs*  
*Consumer acceptance*  
*Employee considerations*

**Page 13**      **Chapter 3**      |      **Challenges and concerns**  
*The security concern*  
*The customer service issue*  
*It takes jobs away*  
*Self-checkout and alcohol: A dangerous mix?*

**Page 15**      **Chapter 4**      |      **Determining ROI**  
*Is my store right for self-checkout?*  
*Self-checkout and its implications for small- and medium-sized retailers*  
*How long until it pays for itself?*  
*Case study: Tops Super Foods*

# About the sponsors



*Pan-Oston has been delivering innovative solutions to grocery customers for 40 years. A variety of checkout lanes are designed to fit any budget, and made-to-order solutions also are available. Pan-Oston works to help any size grocery store find a checkout solution that will increase customer satisfaction, efficiency and revenue while lowering costs.*

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Published by NetWorld Alliance

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# Chapter 1 The basics of self-checkout

In the middle of the 20th century, a quantum shift took place in the way consumers bought a certain item. Prior to that time, if you wanted gasoline for your car, you pulled up to a service station and waited while an attendant came out and filled the tank for you.

Self-service at the gas station changed all that, and today the full-service gasoline lane is almost an anachronism.

Something similar happened in retail a little over ten years ago, when self-checkout units started popping up in grocery stores. At first, they were greeted with suspicion; people thought, “They want me to do that? I thought they were supposed to do the scanning and bagging.” But today, self-checkout is a beloved facet of retail, and is the first choice for a growing number of users.

For the most part, adoption has been the highest at supermarkets and big-box retail stores, but an evolving number of technologies and innovative designs means that in the next few years, it will be possible for self-checkout’s benefits to be applied at virtually every type of customer-facing business.

## How it works

On the surface, the self-checkout concept is simple: Take the final portion of the shopping experience (the transaction) and have the customer perform those steps rather than an employee. Beyond that basic concept, there are a significant number of ways to approach the idea both strategically and tactically.

*Today, self-checkout is a beloved facet of retail, and is the first choice for a growing number of users.*

Paul Denimarck, who handles strategic marketing for the self-checkout division at Honeywell Scanning and Mobility, a data collection and wireless communications solutions company, says all self-checkout platforms can be divided into one of two types: stationary and portable.

“Stationary self-checkout platforms are located at the front of a store,” he said. “A customer using a stationary self-checkout platform brings their merchandise to the lane, identifies the items they are purchasing with the scanner and tenders payment at the same location. Portable self-checkout platforms disperse the transaction process at different points — the customer identifies individual items using a bar code scanner at the point of selection, and then the customer takes



*Self-checkout comes in a variety of options, but all of them allow the customer to control the final part of the shopping experience.*

the items to a separate location to tender payment.”

(For an example of the latter form, see the Giant Foods case study at the end of this chapter.)

Beyond the theoretical differences, there also are practical distinctions between self-checkout platforms, and those distinctions will vary from one manufacturer to another. The Utopia self-checkout solution from Pan-Oston, the Bowling Green, Ky.-based company that has supplied the grocery industry with checkout lanes and other fixtures for more than 40 years, is built upon an open architecture platform. Utopia is a plug-and-go self-checkout terminal that operates with either Microsoft.NET or Linux, and integrates seamlessly with 98 percent of POS software currently on the market.

In addition to a variety of operating platform options, there are several different models, based on the space available and the ultimate goal of the retailer:

- **Cashier-optional.** This option enables retailers to quickly and simply change a check lane from manned to self-scan to meet daily operational and staffing needs.
  - **Countertop/in-counter.** These are perfect for retailers with a single cash counter, convenience stores or for the deli, self-serve beverage/food areas and in-store pharmacy counters in supermarkets.
  - **Kiosk/mobile self-checkout.** These are flexible units that can be placed anywhere in the store. These are usually considerably smaller than traditional self-checkout terminals, and are usually aimed at “grab-and-go” segments like convenience foods.
- **Modular.** This is the self-checkout lane most frequently seen in supermarkets today. These are stand-alone units, usually clustered in groups of two, four, six or eight, utilizing a fixed or mobile attendant station.
  - **Carousel units.** These offer a lay-aside area for scanned items and a larger bagging area, usually on a rotating carousel, to ease the bagging process for customers doing large orders and who want to control their bagging options.

### Who it works for, and who it doesn't

As mentioned earlier, self-checkout so far has been chiefly adopted by supermarket and big-box retail segments. Which begs the question: Are there some types of retail that either are particularly well-suited, or ill-suited, to self-checkout?



*Self-checkout units are already popular in grocery stores, where they have been made simple enough to let the whole family help with the task.*

Carrie Smola, solution marketing manager for NCR, a global technology company offering assisted and self-service solutions, doesn't think so.

"In years past, supermarkets or hypermarkets were the typical users of self-checkout because of their high-volume and high-traffic front ends," she said. "This is no longer the case. All types of retailers are looking to self-checkout to satisfy their customers' demands for a fast and independent shopping experience and to maximize their operational efficiencies."

Denimarck sees lots of room for expanded adoption, but does acknowledge that there are some types of stores for which it will be a tough fit.

"High-volume transaction retailers, often in the market of food/grocery, DIY home improvement and mass merchants are ideal for self-checkout," he said. "As item identification takes the most time in point-of-sale applications, these responsibilities are lifted from a store employee's workflow, thus reducing labor needs.

"Department stores, specialty stores and boutiques have not seen a huge ROI for self-checkout. With hang tags and soft goods, it is harder for the customer — an untrained user — to accurately identify an item's bar code for scanning."

John Blankenship, program manager for the Utopia self-checkout solution at Pan-Oston, said his company believes its self-checkout solution is "suitable for all supermarkets irrespective of size and for any traffic-count retail segments looking to improve their customer experience and reduce their costs."

He noted that Utopia has already been successfully deployed in other applications such as convenience store banners and is

***"[Self-checkout is] suitable for all supermarkets irrespective of size and for any traffic-count retail segments looking to improve their customer experience and reduce their costs."***

— John Blankenship, program manager for the Utopia self-checkout solution, Pan-Oston

receiving significant customer acceptance.

"I don't think it 'doesn't fit' anywhere," said Norma Wolcott, self-service business executive with IBM. "Probably the most challenging segment is clothing, where you may have security tags, but really that's an operational question [of] how you want to handle that intervention, getting that tag off. There are earlier adopters than others — grocery, DIY, general merchandising, convenience is coming very quickly. The most challenging operationally is clothing, but it's still deployable and can be effective."

## Case study: Giant Foods

### The new power shopper: Pennsylvania grocer adopts world-class self-service solution.

Giant Foods of Carlisle, Pa., offers its customers what most grocers do: food, household items, a deli, some specialty items, a pharmacy. What it didn't have was a way to unite the various departments in a way that made shopping easier for their customers, and less costly to provide. They looked to self-service and integration for a solution.

"When we were thinking this through, the emphasis was on what solutions we could enable that would allow us to provide our customers with greater convenience and greater comfort when they're shopping our stores," said Nick Montepara, vice president of retail operations and planning for Giant Food Stores. "We spent a lot of time working with the various businesses before we even touched the technology because I felt it was important not to get confused by any preconceived limitations of what technology can do."

After these brainstorming sessions, the Giant Super Food store in Camp Hill, Pa., raised the bar. They took multiple legacy applications and integrated them into the new kiosk network. Camp Hill Giant shoppers can use any of the 13 self-service shopping kiosks to perform numerous tasks — from placing a deli order to refilling a prescription or printing out a recipe. The front-end interface changes depending on where it is deployed within the store, but after a couple of clicks, the user can access any function available for any part of the store.

"The customer-friendly technology at the Camp Hill Giant store will go beyond the

last wave of grocery retail innovations such as self-checkout and stand-alone kiosks," said Tony Schiano, president and chief executive officer of Giant Food Stores.

Giant tapped applications provider Agilysys, which teamed with St. Clair Interactive Communications Inc., IBM Corp. and Symbol Technologies Inc. to implement the multi-application kiosk system and a portable personal shopper system.

### The technology behind the solution

Giant's Shopping Solutions encompass

- 23 self-service kiosk applications running on 25 IBM Anyplace Kiosks with Symbol 3207 MiniScan scanners and five large LCD digital media screens interfacing with content and operations integration and 14 legacy data sources.

*continued on next page*



- Personalized offers and coupons based on a customer's information from his or her loyalty card and look-up prices on various products throughout the store, all via special applications developed by Agilysys.
- iPAL product locator software from Treo Systems, which allows shoppers to quickly locate items in the store.
- Applications from ShoptoCook Inc., which gives customers access to a wide variety of recipes.
- Applications from Healthnotes Inc., providing content-rich health, wellness and pharmacy-related information.
- A common user-interface using St. Clair Interactive's application templates.
- A custom-designed enclosure from Frank Mayer & Associates.
- A printer from Practical Automation Inc., for receipts and other printouts.

St. Clair's infrastructure software enables Giant's management to centrally control, manage and distribute store promotions based on the time of day to the kiosks and digital media LCD screens located throughout the store. The company also played a major role as an application provider, integrating Giant's legacy technology systems with store ordering, customer loyalty, targeted offers, product information, store amenities and community events.

### System integration and team integration

Putting together this type of self-service solution wasn't all about the technology. It required a large cooperative effort by all parties involved, as well as the common goal to produce a solution

that would help Giant's customers have a better shopping experience. Along with people from St. Clair, Agilysys and IBM, more than 50 employees of Giant took part in creating this new method of shopping.

St. Clair president Doug Peter said the experience was overwhelmingly positive.

"I always preach the gospel when we start on a project that it can't be just one department — it has to be representative of everyone who's going to be involved with the technology," he said. "And we must have had 60 different people in the planning meetings, from all different departments of the company. There are so many different views of what this is doing for the company, and yet they've achieved their goal of having one platform."

Peter said the level of cooperation and cohesion among the partners, as well as between the partners and the client, was unprecedented.

"It was very productive to bring together so many different players who have individual interests but who saw the benefit of achieving an overall platform for the client," he said. "The degree of integration on this project was far more complete than anything I've seen before. We're linked into 14 different Giant back-office systems, and it was quite remarkable."

### Rolling out results

Since the beta rollout of the first system in August 2005, and the initial implementation in October, Giant Foods has brought one new Shopping Solutions store online every three weeks. Initially, Giant Foods planned only three stores with the initial solution, but six are online now with more coming soon.

## Chapter 2 Self-checkout in depth

In the last chapter we briefly touched on the various form factors and approaches to self-checkout. Now let's take a closer look at the hardware and software used in deploying self-checkout, and how all of those pieces are brought together within the retail environment.

### Hardware options

A retailer that wants to deploy self-service has a lot of different options available. To a large extent, that retailer can custom-design the exact configuration he needs and then put it all together using available pieces and parts.

For instance, IBM's self-checkout line consists of an extensive selection of components and models that can be configured as needed. Spokesperson Tina Horne said the IBM self-checkout solution offers one-bag, two-bag, three-bag and six-bag carousel units as well as two different models with conveyor belts of various lengths. Any of those can be configured to work with the IBM Checkout Environment for Consumer-Service (CHEC) platform, which ties it all together and makes it work with the retailer's POS system.

"Pan-Oston also gives retailers a very broad selection of self-checkout choices to meet their space and functionality requirements," John Blankenship, Pan-Oston's program manager for the Utopia self-checkout solution, said. "Utopia allows retailers to select from a significant array of product lines, all with optional plug-and-go software/hardware and operating features."

The company also offers modular units, which allow retailers to select individual

pieces — cabinet, hardware, software and functionality — and then modify those configurations as operational needs change over time. Pan-Oston also has an "Auto Attendant" product, which allows retailers to convert their existing checkout lanes into unmanned self-checkout lanes.

*"[Self-checkout systems] can be very turnkey or highly customized, and that's based on the retailer's desire and the differentiation on the front end that they want to replicate."*

— Norma Wolcott, self-service business executive, IBM

### Software options

In virtually every circumstance, self-checkout is being brought into an enterprise that already relies on some pretty sophisticated software. So, the challenge becomes not so much about buying a new tool but making the tool work with the existing software that powers the company.



The "Auto Attendant" product from Pan Oston, seen above, allows retailers to convert their existing checkout lanes into unmanned self-checkout lanes.

“Self-checkout systems can absolutely be built upon existing POS, and that most often is done,” said IBM’s Norma Wolcott. “The software question, in my view, is really key. The turnkey nature of it depends on the retailer’s strategy. If they have put significant brand differentiation into their POS, they’re going to want to convey that on their self-checkout systems. They can be very turnkey or highly customized, and that’s based on the retailer’s desire and the differentiation on the front end that they want to replicate.”

Wolcott said IBM’s software, the CHEC platform, enables retailers to work with their existing IT shop to tailor their software, rather than heading back to IBM when changes or updates are needed. That saves time and money in the long term, and lets the retailer maintain an extra level of control over its digital assets.

“Pan-Oston’s Utopia software, which operates on either Linux or Microsoft. NET technology, is plug-and-play, seamlessly integrates with virtually all POS applications and is almost 100-percent turnkey,” Blankenship said.

NCR has a similar story to tell with its SelfServ Checkout solution. Carrie Smola, marketing manager for NCR, says the product is based on an open architecture that integrates with a retailer’s existing POS application.

“Because NCR’s SelfServ Checkout uses the same store controllers for data and communications, there is no need to utilize additional servers or LANs,” she said. “To date, we have integrated over 125 retailers with over 40 different POS software solutions.”

### The benefits of self-checkout solutions should be focused on:

- Consumer choice
- Consumer privacy
- Convenience
- Improved customer service opportunities
- Improved employee scheduling
- Ability to manage existing resources efficiently without reacting to dramatic fluctuations in front-end traffic
- Loss prevention

### Integration with loyalty programs

As competition between retailers increases and consumers become ever more discerning about where they will spend their money, the importance of the well-implemented loyalty program continues to rise. Most retailers use some form of database-based loyalty scheme, and the



*Self-checkout units can be a touchpoint to help the retailer gather data to use in a loyalty program.*

## CHAPTER 2 Self-checkout in depth

self-checkout represents another great touchpoint between the user and the data that user can generate for the retailer.

Smola says the majority of NCR's self-checkout retailers currently run a loyalty program.

"Since the underlying legacy POS application is responsible for the business logic of the transaction — such as listing prices, calculating discounts, totaling purchases, etc. — retailers can seamlessly provide their existing loyalty program at the self-checkout," she said. "Leveraging the loyalty application is extremely important across the store, no matter how the customer checks out."

Most self-checkout units make the loyalty connection at the very beginning of the transaction; usually, the first thing a customer is prompted to do when he approaches the device is to scan his loyalty card, thereby beginning the purchase process.

"It is absolutely crucial, and really all of our customers do this," said Wolcott. "It's a no-brainer. Whether they're good at it or not, I think there are many retailers looking for advancements in their loyalty system. The economic conditions are also driving that — we're all cutting coupons more, we all shop at the retailers where we believe we're getting the best deals. This is heightened during this period, and it's critical across all channels, including self-checkout."

The options for making the loyalty connection are varied, too. While bar-code scanning appears to be the most predominantly used method, Blankenship said Pan-Oston's solutions allow retailers to use bar codes, keypad on-screen entry



Photo courtesy of iStock

*Self-checkout allows employees more time to increase customer service and increase sales revenue.*

or even biometrics to identify the shopper.

### Consumer acceptance

Consumers and shoppers are embracing self-serve/self-checkout technology with few reservations because in many situations they feel the transaction is quicker, more convenient and more private.

Today, more than eighty percent of all consumers have regular interaction with self-serve technology and more than half of consumers across all age groups prefer to use self-checkout when provided with the opportunity.

### Employee considerations

Technology is no longer a major concern

in self-checkout adaptation by employees. Our society is surrounded by self-service applications from pay at the pump to online check-in at airlines. These applications are convenient and efficient. Could you imagine all passengers checking in at a ticket counter again? Self-service applications are a way of life now and are not only accepted by the general population but also are often preferred.

Employee buy-in to self-checkout solutions is dramatically influenced by the corporate message. A corporate message that focuses on labor reduction will in turn receive resistance on buy-in.

Jim Vance, president of Pan-Oston, notes that in his company's discussions with retailers, they always focus on two revenue producing opportunities from self-checkout.

“The first [opportunity is] the potential increased margin from reducing labor costs at the front of the store but an even greater opportunity is to redeploy this labor to increase overall customer service — a key brand loyalty driver — or to other areas of the store where additional sales revenue can be generated. The second critical advantage of self-checkout is that it can offer an enhanced customer experience by allowing the customer to control the checkout transaction.”

## Chapter 3 Challenges and concerns

Self-checkout creates a number of questions in the minds of those who encounter it — not just the shoppers but also the stakeholders at the retail organizations themselves. Here are the three most commonly encountered challenges and concerns, along with some thoughts on how to answer them.

### The security concern

This is a major concern, and it is certainly an understandable one. Under the traditional checkout model, the store has one final security gateway — the eyes of the employee — to prevent products from leaving the store without payment, whether intentional or not.

But self-checkout has been designed to tackle this concern from day one, usually by employing weight scales, cashier-enabled security cams, smart carts or some combination thereof.

**Retail shrinkage averaged 1.52 percent in 2008, an increase from 2007.**

*Source: The National Retail Security Survey*

According to the most recent National Retail Security Survey, retail shrinkage averaged 1.52 percent in 2008, an increase from 1.44 percent in 2007, and total retail losses grew to \$36.5 billion.

The survey said that employee theft accounted for \$15.9 billion (44 percent) of the losses and that 14 percent of those cases involved collusion.

Self-checkout technology can reduce employee theft by controlling the cash



*Self-checkout units employ many technologies to help combat theft, so security doesn't have to be a concern.*

environment. Cash control within the self-checkout environment is generally appointed to front-end managers, cash room managers and store managers, which eliminates potential theft from typical cashiers. Coin and bill recycling also limit the amount of cash required within the units and eliminates the need to frequently replenish the self-checkout system during operational hours, thus reducing the cash exposure and expense required within traditional self-checkout systems.

Another area that has demonstrated vast improvement within the self-checkout platform is the accuracy of product look-up (PLU) categories. According to Pan-Oston, scanning accuracy for produce has dramatically increased on self-checkout systems deployed compared to traditional

**Self-checkout technology can reduce employee theft by controlling the cash environment.**

checkout lanes. This is attributed to customers knowing exactly what they are purchasing versus a cashier that associates a similar looking product with a PLU code they have memorized. Cashiers are evaluated on transaction time and accuracy; however, accuracy of scanning PLUs is difficult to track and associate with a particular cashier.

### The customer service issue

Although attitudes regarding customer service as it applies to self-service are rapidly changing, early adopters of the technology often found themselves facing the notion that they were somehow offering less service than before, or that the quality of it was reduced by having less human involvement.

Things are different now, as shoppers understand that as portions of the buying process are placed under their control, they are more likely to have a good experience. One of the ways this experience improves is by the redeployment of store staff that self-checkout allows.

“[Self-checkout] enables retailers to increase throughput at the front end and to shorten customer lines by allowing more lanes to be open more of the time,” said NCR’s Carrie Smola. “Many retailers further improve customer service by expanding their labor allocation in other areas of the store, including stocking inventory, answering questions in-aisle, promoting specials, etc. — all areas that help improve customer service and the customer’s experience in the store. How many times have you been frustrated as a shopper when you can’t find the item you need, and, more important, someone

*“Many retailers further improve customer service by expanding their labor allocation in other areas of the store, including stocking inventory, answering questions in-aisle, promoting specials, etc.”*

— Carrie Smola, solution marketing manager, NCR

to help you find it? By freeing up cashier labor, the retailer can better help you in-aisle and improve your shopping experience.”

### It takes jobs away

We’ve saved the toughest challenge for last, the objection to self-service that probably gets raised more than any other by shoppers: the notion that self-checkout, for all of the improvement it brings to the customer experience, is a negative because it eliminates jobs.

Fortunately for retailers, it's a notion that simply isn't true most of the time.

“This is still somewhat of a consumer perception,” said IBM’s Norma Wolcott. “We have not seen this be a factor in deployment — we see much better labor management, the ability to re-smooth the labor peaks and valleys. We have not seen this to be a direct effect of putting self-checkout in.”

Honeywell’s Paul Denimarck points out that rather than eliminating jobs, self-checkout changes the employees’ responsibilities. “Hours formerly spent at the front cashiering are now translated into hours spent on other tasks, such as customer service and interaction or supply chain management,” he said.

## Self-checkout and alcohol: A dangerous mix?

*Excerpted from “Self-Checkout and Alcohol: A Dangerous Mix?”, originally published on KioskMarketplace.com, July 14, 2009.*

Self-checkout machines have been a mainstay in America’s grocery stores and supermarkets for some time, but there is growing concern that some shoppers may take advantage of the technology to illegally purchase alcohol.

A study published in June by a UCLA Law School clinic and the advocacy group Los Angeles Alliance for a New Economy, or LAANE, has highlighted that very issue. The report, “Self-Checkout: Is it Reliable for Selling Alcohol,” presents data that has troubled some readers, particularly in the state of California.

In conducting the study, the groups encountered several factors that, either alone or in combination, might allow the illegal purchase of alcohol at a self-checkout machine more easily than at a traditional checkout lane, either by minors or customers who are already intoxicated.

According to the research, in two-thirds of their visits to specific grocery chains, participants saw only one employee working at the self-checkout area, and in five instances, they saw no self-checkout attendant at all. Additionally, though it is the industry standard for clerks to check the ID of anyone who appears under the age of 30, one-third of participants reported that they were not asked for

their ID, and only one participant was ever asked to give the date of her birth.

“In combination,” the study said, “low numbers of employees supervising self-checkout machines, obstructed views and long wait times enhance the risk of error in monitoring alcohol purchases and may make it easier for customers to purchase alcohol illegally, either through deception or theft. These results suggest the absence of careful scrutiny that would allow employees to judge either age or level of inebriation.”

The study’s results also indicate that in eight instances, the self-checkout system didn’t lock when alcohol was scanned, and that in 11 cases, participants were able to “override” the system, either by scanning another item, swiping a credit card or both. In total, the study says participants were able to override a locked self-checkout machine or bypass the employee-override process 19 times out of 97, or in 20 percent of the visits.

According to the report, more than 2 million Americans under the age of 21 drink alcohol each year.

“The results of the study strongly suggest that the use of self-checkout machines can increase the ease with which minors and those who are inebriated are able to purchase alcohol,” it said.

Some in the self-service industry aren’t sure it’s fair to place the blame on the technology.

“We’re aware of no malfunction that would allow the system to operate as the study’s authors claim,” said Dusty Lutz, director of NCR Corp.’s SelfServ Checkout efforts. “We believe that they had a misunderstanding of how the technology is performing the alcohol age-check.”

Lutz says NCR self-checkout machines, which are deployed by some of the chains surveyed, allow retailers a configuration option whereby the scanning of alcohol would not necessarily prevent the shopper from scanning more items before her age is verified. However, this configuration figure may be mistakenly referred to as a “computer failure” in the UCLA/LAANE study.

“In many cases, retailers have the system configured to allow the age check to be occurring in the background, so the shopper is not interrupted while they’re scanning other items,” he said. “Operationally, we rely on the retailers to make sure that the training is in place to watch over the lanes and to provide the appropriate regulatory oversight.”

“This is just my opinion, but I think [banning the sale of liquor at self-checkout] is a shame,” said Kenneth Duffy, IBM’s kiosk offering marketing manager.

“To my knowledge, we’ve never had a retailer come back and say ‘We’re having issues with people getting products illegally by getting around the system,’” he said.

Duffy believes retailers and their employees may not be doing their part to prevent minors from purchasing alcohol.

“The store managers have to be aware and have to be monitoring the health of that system,” he said. “The employees that are specifically assigned to look after that need to be trained on it and need to be adequately educated on what their responsibilities are.”

Currently, the California State Senate is considering a bill to prohibit “off-sale licensees from selling alcoholic beverages using a point-of-sale system with limited or no assistance from an employee of the licensee.”

According to the bill’s sponsor, Assemblyman Hector De La Torre, Bill AB 1060 was passed in July by the California Senate Governmental Organization Committee in a unanimous 8-0 vote. In August, the bill was passed by the Senate’s Appropriations Committee in a 7-4 vote and was sent on for its third reading.

## Chapter 4 Determining ROI

Self-checkout is not a trivial investment — not just in terms of dollars, but also in terms of human resources, time spent and changes to operational workflow. Any retail CEO is going to want to know where the ROI on these machines is going to come from, and how long it is going to take to arrive.

### Is my store right for self-checkout?

During the exploratory process, there are some questions retailers should pose to themselves to help determine the level of self-checkout integration that is right for them. John Blankenship of Pan-Oston said there are three questions retailers should ask.

“One, do your customers want self-checkout?” he said. “Current research shows that across all segments of retail, over 50 percent of customers want self-checkout as an option. Secondly, does anyone you know not regularly use an



*A grocery store without self-checkout may not be able to handle customer surges, causing customers to feel frustrated and negatively impacting a store's reputation. Giving customers control of the process makes them feel empowered and positive about their shopping experience.*

ATM and self-serve gas pumps? Thirdly, what can you do to offset ever-increasing overhead and operating costs? Self-checkout can help retailers in all of these areas.”

Paul Denimarck of Honeywell suggests a numbers-based approach to making the decision.

### Issues that may mean self-checkout is appropriate for your store

Rahi Roshandel, director of strategic marketing for Fujitsu America, offered up the following list of issues, saying that any retailer struggling with any of them should strongly consider self-checkout:

- Long lines at checkout
- Perpetually understaffed or understaffed registers
- Supervisors or managers running registers
- Calling of back-up cashiers
- Inability to deal with “spikes” or customer surges
- Customers abandoning carts
- Poor cashiering such as incorrect scanning, missed items or inability to resolve issues

“To determine whether self-checkout is the right investment, retailers need to look at the ratio of labor hours required for checkout versus the dollar amount per sales tendered at checkout,” he said. “The lower a retailer can drive the labor spend, the more efficient the checkout — and the retailer — becomes.”

### Self-checkout and its implications for small- and medium-sized retailers

Once you run the numbers, it becomes obvious that self-checkout is a no-brainer for retailers of a certain size, where the economies of scale kick in almost immediately. But what about the small- or medium-sized retailer? Should they be looking at self-checkout, and how do they justify the expense and the amount of work involved?

“We believe that small- and medium-size retailers need to provide their customers with a shopping experience unique to their brand and with the same or a better level of customer service,” said Blankenship. “Consumers are demanding self-checkout. Further, we believe that small and medium retailers should have the same access to business- and profit-building technology as large corporate retailers.”

“Many small- and medium-sized retailers are looking to self-checkout to help differentiate them in the marketplace,” said NCR’s Carrie Smola. “They know that consumers today are seeing self-checkout in most major supermarkets and hypermarkets and that growing numbers of consumers expect to see self-checkout in all environments. Self-checkout is also helping maintain their excellent customer

**“Consumers today are seeing self-checkout in most major supermarkets and hypermarkets and growing numbers of consumers expect to see self-checkout in all environments.”**

— Carrie Smola, solution marketing manager, NCR

service by giving their consumers a choice for how they want to check out.”

### How long until it pays for itself?

So, now, on to the question that the CEO is going to want the answer to before any others: How long before we get our money back?

Again, that’s an answer that will vary, not just from vendor to vendor but also from retailer to retailer. But in most cases, the answer lies somewhere between one and two years.



*Self-checkout units, like the one seen above, improve the customer experience immediately, but it can take between one and two years before the investment is recouped.*

“Research and field experience show more and more consumers using and preferring a self-checkout option,” said Blankenship. “As the use of the technology increases, the ROI period will decline significantly from the current 18 months. If the consumer considers the full benefit of self-checkout, encompassing more accurate PLU scanning, security of cash, limited cash required for startup and operation in bank note recycling models, the ROI is substantially reduced. Some models indicate less than 12 months.”

Smola said NCR’s data points to a positive ROI usually achieved between 18 and 24 months.

“A key component of any self-checkout implementation is in-store promotion and employee support,” she said. “Training for all associates is important. A good attendant is important to help consumers feel comfortable using self-checkout and to maintain high levels of customer service. Successful implementation of self-checkout is the key to a retailer achieving positive ROI.”

### Case Study: Tops Super Foods Taking it to the Next Level

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When Tops Super Foods, a family-owned grocery store located in the historic Gold Rush town of Weaverville, Calif., decided to upgrade its checkout stations as part of a store remodel, they chose to take their in-store technology to the next level.

Established in 1961, Tops Super Foods is owned by Dean Ryan and his brothers, and is managed by Dean’s wife, Renie. As a long-time customer of NCR, the Ryans decided to work with John Creamer, president of SNCR California, an NCR reseller, to add four NCR SelfServ Checkout self-checkout lanes, and upgrade five employee-manned stations with the NCR RealPOS 80XRT point-of-sale (POS) solution.

Most shoppers may not expect to find this type of advanced technology in a

small grocery store. However, according to Creamer, Dean was quick to consider self-checkout technology as a way to better serve his customers. “Many of the big chains have enjoyed the benefits of self-checkout for some time,” said Creamer. “Consumers are increasingly drawn to grocers that provide self-checkout for added convenience, and Dean felt it was something he wanted to offer to his customers.”

Tops’ Weaverville location is known as a tourist spot, with many visitors coming during the summer from the urban San Francisco Bay area. Because self-checkout technology is something most tourists are already accustomed to, shopping at Tops allows them to enjoy the “comforts of home” while on vacation. “Self-checkout is convenient for vacationers, as well as our regular customers, who come in and want to purchase a few items; they don’t have to wait in line behind someone with

a cart full of groceries,” said Renie.

When Tops’ employees were told that self-checkout lanes were being added, some were initially concerned that jobs would be cut. But the Ryans assured them that the self-checkout lanes were designed to help boost employee productivity, rather than cut their work force. “Many employees were afraid they would be out of a job,” Creamer said. “But that didn’t happen. Instead they were trained to help customers who were new to self-checkout, and Tops always has one attendant on duty to manage the self-checkout lanes.”

Renie added, “There are some shoppers that are hesitant at first, however most are receptive simply because of the convenience. Someone new comes in every day that has not used this technology before, and it is so nice to have an employee there to offer a demonstration, especially during busy times when there are long lines and they only have a few items.”

The Ryans, with Creamer’s guidance, also chose the NCR RealPOS 80XRT POS solution because of its speed and accuracy. Flexibility was also key. The NCR RealPOS 80XRT allows the Ryans to

easily add on peripherals, such as printers and display units, without adding any additional data ports. “Dean didn’t need to add multiple power ports,” Creamer said. “Everything conveniently runs off one data cable.”

According to Renie, when the Ryans first considered an upgrade to their checkout technology, they analyzed several systems. But it was the NCR family of products that stood out. Their past experiences with SNCR and the responsive attention from Creamer and his staff were also major factors. “We really felt the NCR products were the way to go with this upgrade,” Renie said. “We’ve always had a good experience with their POS solutions, and wanted to stay with NCR and SNCR. We are in a remote area, and even though SNCR is located about four hours away, John Creamer and his team have always been great about getting to us in times when we needed them the most.”