

SELF-CHECKOUT: A GLOBAL CONSUMER PERSPECTIVE





Everything old is new again

Self-service is not a new concept—in 1916 Clarence Saunders pioneered a new supermarket concept in the US that let customers use a shopping basket and select their items from the shelves without assistance from store clerks. Saunders' store, the Piggly Wiggly, quickly became the new model for supermarkets and the beginning of self-service in retail.

New instances of self-service have cropped up everywhere from banks, to retail stores, airports, hospitals, gas stations, hotels, restaurants, government entities, and entertainment venues. Self-service has become a ubiquitous part of our world and has helped create a new era of efficiency, convenience, and productivity benefiting both deployers of self-service and consumers.



RBR, a London-based strategic research and consulting firm, reported the global self-checkout market grew by almost 25% in 2013. The global installed base of self-checkout terminals will rise from 191,000 in 2013 to reach nearly 325,000 by 2019.



Self-checkout is no exception. Since its initial debut in 1992, self-checkout has grown exponentially due to high consumer acceptance and the benefits that it offers retailers in improving the customer experience. Even though self-checkout is a mature technology, new concepts are emerging to:

- Accommodate smaller store formats and/or high traffic urban locations
- Offer convertible options to switch from customer-facing self-checkout to an assisted checkout during peak periods
- Enable placement throughout various points in the store instead of being restricted to just the front end



Several potentially large markets in western Europe, including Germany, have yet to fully embrace the technology, and these are expected to grow over the next six years. Shipments to newer self-checkout markets are also expected to increase in countries like Brazil and China.

—Source: RBR, 2014

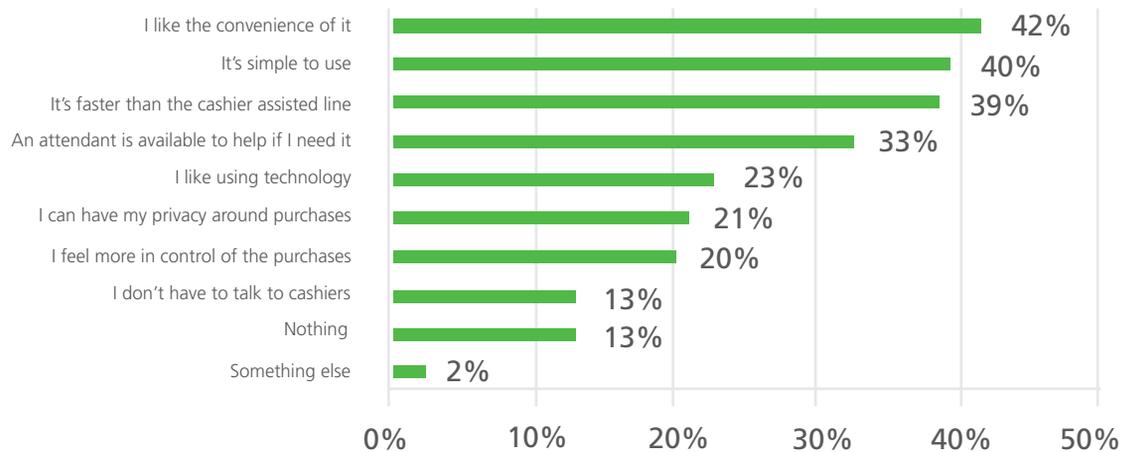


Why use self-checkout?

In retail, self-checkout is used extensively in supermarkets, mass merchants/hypermarkets, convenience stores and home improvement stores and has strong consumer acceptance. Since its inception, shoppers have gravitated towards self-checkout when they are purchasing a smaller basket, typically less than 15 items. Globally, consumers said they rely on self-checkout when they:

- have just a few items
- when the cashier lines are too long
- when they are in a hurry

What do consumers like about self-checkout?



Multiple responses allowed



A 2014 NCR global study, conducted by the NPD Group, revealed that of the 2,803 consumers surveyed in Australia, France, Germany, Italy, Japan, Russia, Spain, UK, and the US, **90% identify themselves as users of self-checkout. Of these, seven percent of global consumers always use self-checkout regardless of how many items they are buying or how long the need to wait to use it.** Italy and Australia had the highest percentage of consumers who “always use self-checkout” with 13% and 9% respectively.

Why do consumers around the world like self-checkout? They like the convenience of it, find it simple to use, and think it is faster than a cashier assisted lane. Over a third of them also said they like knowing an attendant is available to help them if they should need it.

I like the convenience of it

- **54%** Italy
- **52%** Australia
- **51%** Germany
- **50%** US

It's simple to use

- **50%** Italy
- **47%** Australia
- **44%** Spain

It's faster than the cashier assisted line

- **46%** Russia
- **46%** Japan
- **45%** Italy
- **45%** France



What about customer service?

Consumers in Italy and Russia had the most positive impressions of self-checkout (SCO) overall. When asked if they agree or disagree with the statement, “Retailers who offer self-checkout provide better customer service,” 85% of the Russian consumers and 78% of the Italian consumers selected “strongly agree” or “agree.” Only 2% of consumers in both Russia and Italy disagreed that self-checkout is not linked to providing better service.

It’s interesting that self-checkout is a fairly new concept in Russia and already receiving high customer acceptance. Consumers in Russia find self-checkout not only faster and more convenient than traditional assisted checkout, but they also like to use the technology.



According to a survey conducted by New Vision Inc., in cooperation with St. Petersburg State University, nothing annoys customers more than queues in supermarkets.



Italy has seen strong consumer adoption of self-checkout. Interestingly some retailers have been successful using self-checkout to give shoppers a quick checkout option during the lunch hours to purchase sandwich/deli items.

In the UK, US, and Australia, self-checkout is no longer a service differentiator; it's an expectation. Shoppers expect to have a self-checkout option in certain retail environments demonstrated by the continual expansion of self-checkout in these countries. A key benefit of SCO is that it has helped to free up store associates to provide additional service elsewhere in the store, such as stocking shelves and providing in-aisle assistance.

In a Food Marketing Institute (FMI) study, 40% of US shoppers ranked self-checkout as "somewhat important" or "very important" when selecting a primary grocery store. Additionally, 92% of shoppers said having fast checkout is "somewhat important" or "very important" when selecting a primary grocery store.

—2014 FMI US Grocery Market Trends



49 percent of retailers have improved on-shelf product availability due to self-checkout

—2012 TechValidate study of NCR SelfServ™ Checkout users



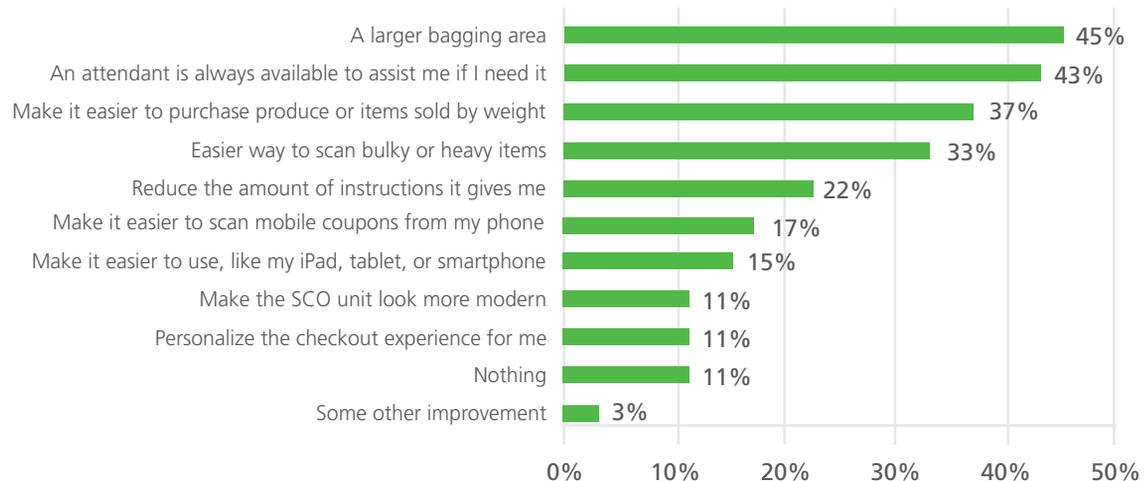
How can self-checkout be improved?

When asked about improvements that could be made to SCO to improve the shopping experience, consumers around the world had four top recommendations:

- A larger bagging area would be nice
- An attendant who is always available to assist if needed
- An easier way to purchase produce
- An easier way to scan bulky or heavy items at self-checkout

Fortunately, many of these points have already been addressed by the latest generation of self-checkout hardware, software, and operational best practices. First, SCO features a modular bagging area that can support large and bulky items or even a full cart's worth of items. Retailers have lots of configuration options to choose from and should select a bagging area size that can accommodate twice the average basket size for their SCO lanes to meet customers' expectations.

Suggested improvements to self-checkout



Multiple responses allowed



To enable attendants to better assist customers, mobile attendant monitoring is available to give attendants more freedom to interact with customers using a hand-held device. There are also solutions available to let the attendant know which customer has been waiting the longest to maintain a 'first-come, first serve' service model.

Retailers who proactively manage their produce pick lists and follow best practices have more satisfied customers, less attendant assistance required, and faster transaction times. Best practices include having a product image for all items in the pick list, ensuring all non-barcoded items are included in the pick list, excluding items that are not sold in the store from the pick list, logical classifications and item descriptions, and alpha search capability. Getting these elements right can have a positive impact on the checkout experience.

For dealing with bulky or heavy items, hand-held scanners can be provided at the SCO for the customer to use. Attendants should also be proactive in helping customers with these types of products using their hand-held scanner.

"A larger bagging area"

- **54%** Australia
- **53%** UK
- **52%** Italy
- **49%** Germany

"An attendant is always available to assist me"

- **55%** Russia
- **51%** Italy
- **45%** Spain
- **44%** Australia

"Make it easier to purchase product or items sold by weight"

- **52%** Russia
- **51%** Japan
- **40%** Germany
- **39%** US

"Easier way to scan bulky or heavy items"

- **40%** Italy
- **40%** Russia
- **38%** Australia
- **36%** US



What about the overall shopping experience?

When asked about what could be done to improve the overall shopping experience when they chose to use self-checkout, the top answer was a self-service option to weigh and barcode fruit and vegetables in the produce section. Retailers offering stand-alone, self-service produce weighing stations are becoming more common around the world. However, if the retailer implements best practices for managing the self-checkout produce pick list, customers may find entering their produce items at self-checkout simple enough to not need the self-service produce weighing stations.

Several countries have implemented different floor layouts for self-checkout and some high volume retail locations have worked on redesigning the queuing area so customers can more intuitively see when a SCO is available for them to use. Many retailers have migrated from a courtyard style layout with no defined queuing, to more of a bullpen style layout with a single queue. An additional benefit of this configuration is the ability to offer impulse items along the queue, providing additional merchandising options for the retailer and incremental revenue opportunities.

“Self-service option in the produce department to weigh and print a barcode”

- **53%** Russia
- **41%** Germany
- **40%** Australia
- **39%** US

“Visually let me know when a SCO is available for me to use”

- **51%** Russia
- **39%** Germany
- **38%** Spain

“Communicate that I am a first time user and need help”

- **46%** Italy
- **41%** Russia

“Give me more access to self-checkout throughout the store.”

- **50%** Russia
- **38%** Italy
- **32%** France
- **32%** Japan



Consumers who were new to self-checkout wanted to be able to let the attendant know they might need some assistance. Self-checkout has a “Help” button on all screens so the customer can easily request assistance. To address this, best practice recommends giving attendants training beyond the basics, such as clearing an intervention or reloading paper. Retailers need to place equal training emphasis on “soft skills,” such as how to read a customer’s body language to know when they should step in to offer assistance before the customer has to ask for help.



Suggestions to improve the overall shopping experience when using self-checkout



Multiple responses allowed



Where do consumers want to use self-checkout?

When you think of self-checkout, supermarkets are probably the most common retail environment consumers mention. Mass merchandise, home improvement stores, and convenience stores also have proven to be very successful with self-checkout.



In Italy, Russia, Spain, and Japan, there was strong consumer appeal for SCO in a mass merchandise environment.

68% Italy
67% Russia
60% Spain
56% Japan

Others ranked home improvement retailers high with

50% Germany
45% Italy
41% France

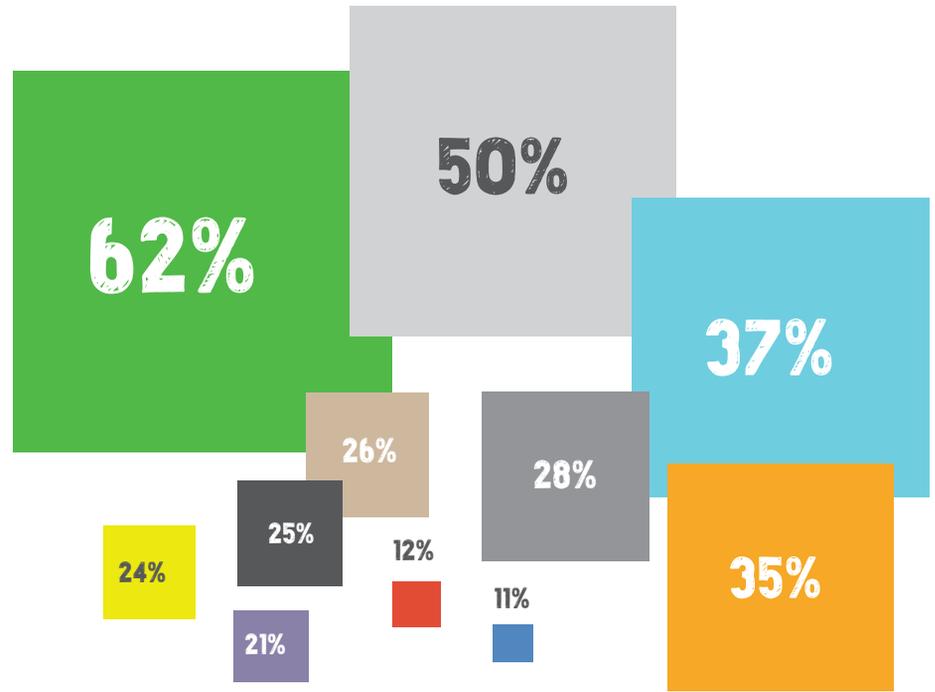
Convenience stores were another preference by consumers with

53% Russia
45% Italy
43% Spain



The study suggests that many other retail environments may be conducive to having self-checkout, not just at the front end, but at different points in the store. For example, a convenient 'grab and go' self-checkout option for customers purchasing sandwiches or prepared food can alleviate lines at the front end while making it more convenient for customers.

- Supermarket
- Mass merchants
- DIY/Home improvement
- Convenience store
- Discount department store
- Newspaper/book store
- Department store
- Pharmacies
- Electronics store
- Specialty store/boutique
- None



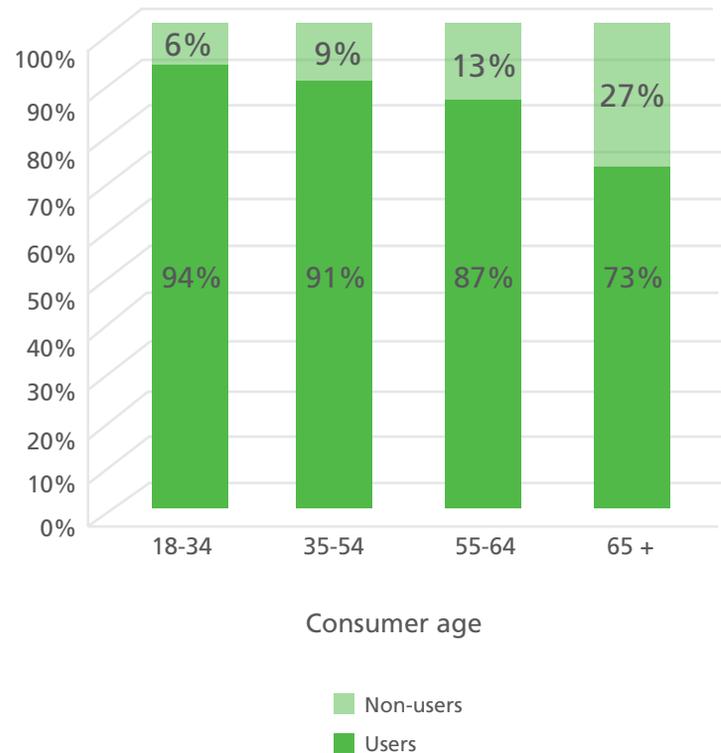


So what about non-self-checkout users?

There is a small percentage of customers, less than 10%, who identified themselves as non-SCO users. 54% of the non-users are women and 46% are men. The reason this small minority does not use self-checkout is that in 50% of cases, they just prefer cashier assistance. Twenty-nine percent of them feel like they are doing work for the retailer, and 24% of them just don't know how to use it.

Self-checkout transcends age, and it is a fast, easy, and convenient checkout solution for the majority of customers and has broad global appeal.

Global usage and non-usage rates by age





The next frontier

Card-only self-checkout

Self-checkout continues to evolve as the needs of both retailers and consumers change. Compact self-checkout designs were created to meet the needs of smaller store formats to minimize floor space requirements. In certain countries, like the UK, the use of debit and contactless payment is on the rise. To address this, new variations of self-checkout are available to give retailers a card only self-checkout option to not only save space, but also reduce the cost by removing the cash handling components. In many cases, the card-only self-checkout is used as an add-on to provide additional self-checkout capacity in addition to the more traditional cash and card self-checkout.





Convertible self-checkout

Customers appreciate choice, and it turns out many retailers do too. Most retailers choose to have a mix of cashier assisted lanes and self-checkout. Some others prefer 100% self-checkout lanes. A convertible self-checkout option is available to offer retailers the best of both worlds. It can be a cashier assisted lane during peak periods and heavy store traffic, and can easily convert to a self-checkout lane within seconds. For consumers, this means greater convenience since more lanes are open and more choices are available at the front end. Greater checkout availability in the store results in higher service levels due to shorter queues, and retailers benefit from improvements in staff productivity and asset utilization

In 2013, debit accounted for 32% of all transactions in the UK.
Retail Customer Experience, "UK Shoppers are Using Less Cash"
–July 14, 2014



"Customers are taking advantage of new ways to shop and pay," BRC Director General Helen Dickinson said.
"The availability of contactless cards, handy express stores and self-service tills as well as online sales has increased the use of debit cards for smaller payments in place of cash."

–Retail Customer Experience,
"UK shoppers are Using Less Cash"
July 14, 2014

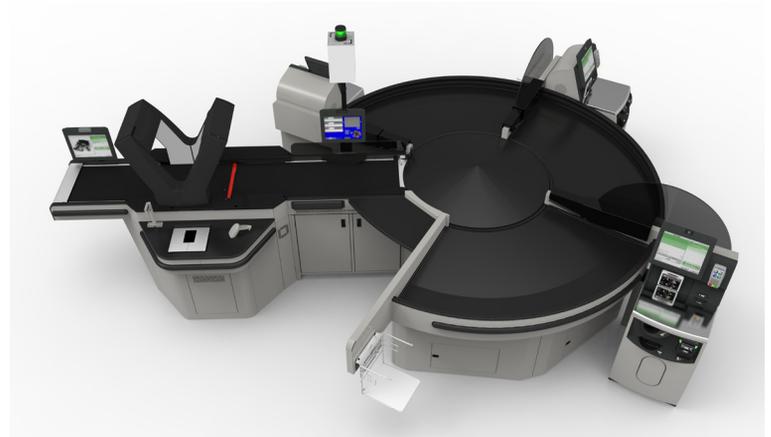


ScanPortal

Self-checkout is optimized for handling up to 20 items, but there is a market need for a solution that can provide better service for customers with more than 20 items. They don't want to wait in line for a cashier manned lane, yet they don't want to use self-checkout either because they have too many items. This creates a customer service opportunity for retailers to offer an alternative checkout to fit the mid-size basket customer and to differentiate their stores from the competition.

An emerging technology is being tested by retailers worldwide to address the mid-size basket customer. It incorporates high velocity imaging technology that automatically scans items while they are moving on a conveyor belt, freeing the cashier to focus on providing better and faster service for things like produce lookup or items not on file. It's ideal for the 25 and up item basket because it fills the gap between cashier manned lanes and

self-checkout. An attendant is always present to handle produce, items sold by weight, or age-restricted items, and the customer is able to tender at a pay station next to the collection area. It's a hybrid approach to checkout which incorporates the best of assisted and self-service into a new solution to increase front end throughput and reduce queues without compromising the checkout experience.





Future of self-checkout: A solution with staying power

A retail solution that was virtually unknown to shoppers a mere 20 years ago, self-checkout has grown to be a ubiquitous part of the shopping experience in supermarkets around the world. It has extended its reach beyond helping consumers quickly scan and pay for their groceries—self-checkout continues to prove itself in retail segments such as mass merchandise, home improvement/DIY, and convenience stores. It is even being introduced to the department store environment and with some specialty-good retailers. The consumer study results further illustrate its widespread consumer adoption, with only 9.8% of global respondents identifying themselves as non self-checkout users.

Self-checkout has undoubtedly moved beyond being a passing trend. From Seattle to Sydney, both shoppers and retailers have come to rely on the convenience, speed, and ease of using this tried-and-true technology. But by no means is it stagnant. Innovations in self-checkout are evolving now more than ever before. New concepts are being developed to fit an even wider range of store formats so retailers can customize the self-checkout solutions to best meet the needs of their shoppers and to deliver real return on their technology investment.

As the leader in self-checkout, with installations in over 30 countries, we are working with our retail clients to shape the future of this important technology as we continue innovating to create exceptional checkout experiences.

Why NCR?

NCR Corporation (NYSE: NCR) is the global leader in consumer transaction technologies, turning everyday interactions with businesses into exceptional experiences. With its software, hardware, and portfolio of services, NCR enables more than 485 million transactions daily across retail, financial, travel, hospitality, telecom and technology, and small business. NCR solutions run the everyday transactions that make your life easier.

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