Maximizing Opportunities
At Self-Checkout

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Executive Summary

The Self-Checkout has emerged as a major new technology for retailers. This is consistent with an overall trend toward automated transactions in numerous service environments. Surveys show that up to 85% of American shoppers have used Self-Checkouts, almost as many have used ATMs. The Self-Checkout has arrived and while there are still issues to be addressed with the technology, the basic concept has gained wide acceptance.

Self-Checkouts are now found in two-thirds of all supermarkets in the U.S. and represent a fourth of all checkout lanes. An estimated 25 to 33% of all supermarket transactions now are self scanning. They can also be found in an increasing number of other store formats including Drug Stores, C-Stores, Mass Merchants, Hardware and Office Supply.

A large segment of shoppers have embraced and like the technology based on its convenience and speed. Many shoppers prefer it, finding it particularly useful for small baskets. Nearly half of all grocery shopping trips today involve purchases of 6 items or less, so Self-Checkouts fill an important role for many shoppers. The Self-Checkout shopper tends to be younger, better educated, and more technology savvy. Once introduced to the Self-Checkout, they tend to conduct all or most of their transactions with it.

Unfortunately, merchandising solutions for the Self-Checkout have lagged behind the technology. Studies show that consumers tend not to shop the regular lanes for impulse items before conducting their transactions at the Self-Checkout. This has resulted in a significant blow to the impulse sales at checkout. Furthermore, the merchandising at Self-Checkouts has simply followed the existing models instead of adopting new designs.

Retailers should be seeking new and innovative merchandising solutions for Self-Checkouts. Optimally, these solutions should be designed specifically to capture impulse purchases from the self checkout shopper and fit the unique properties of the Self-Checkout transaction. Retailers should also recognize that they must offer a variety of transaction choices to the shopper consistent with their preferences. Ultimately, retailers must learn to compete in the marketplace based not only on their products and prices, but also on the transactional choices they offer.
Status of the Self-Checkout

In order to access the status of the Self-Checkout today and project the future, we referenced numerous sources including both primary and secondary research. We were seeking information about the technology, the Self-Checkout experience and best practices in merchandising. To address this, we:

- Reviewed extensive findings from Front-End Focus research
  - Shopper interviews
  - Retailer data analysis
  - Best Practices at checkout
- Conducted audits of 300 grocery stores at 46 retailers in top 25 markets
- Conducted broad search of secondary data sources to gain insights
- Conducted interviews with leading retailers and industry experts

While we may still think of Self-Checkout as new technology, it actually was first developed over 20 years ago by Optimal Robotics. The first system was installed in 1992 at a Price Chopper in Clifton Park, New York. Kroger was the first major chain to adopt Self-Checkout in 1995. Market expansion and increased functionality followed.

Eventually, portable scanners like Scan It were introduced in an effort to further simplify the process. Some stores, like Tesco Fresh & Easy, have elected to depend exclusively on Self-Checkouts. Mobile phone applications were introduced in 2010 and have become an important new option to consider.

It’s not surprising that the retail industry has embraced Self-Checkouts. With woefully slim margins and net profit of just 1%, supermarkets are seeking every advantage available to them. Labor costs often account for 8-10% or more of sales, so the promise of automation is enticing. While Self-Checkouts are expensive to implement, the ROI based on labor savings can be substantial. However, many retailers report the actual savings as soft since they often redeploy people to other tasks. Retailers that viewed Self-Checkouts as primarily a labor saving device were often disappointed.

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Certainly, the technology is not perfect and many retailers report issues with the Self-Checkout. Weight checking remains a problem. Some retailers have reportedly overridden the weight alarms. Also, state and local laws often require intervention by attendants for certain items. IHL Consulting, an industry analyst, estimates that as much as 40% of Self-Checkout transactions require intervention.

Some retailers see shrink as a problem with Self-Checkouts. However, studies suggest the shrink rate is similar to regular checkouts. “The shrink problem may be more perceived than real,” said a retailer. Since a significant portion of shrink is due to employee issues, a properly managed Self-Checkout may actually reduce shrink.

**The Self-Checkout Shopper**

Shopping can be fun, but the checkout process is often frustration and work. Customers can become irritated at the least delay. Since this is their last experience in the store, the whole shopping experience can be ruined by a poor checkout.

For some consumers, the Self-Checkout is a solution. Why? Shoppers are increasingly time starved as they juggle busy lives. In addition, the internet age has created expectations of instant response. Shoppers believe they are saving time by using the Self-Checkout, although this may be a misperception because of reduced wait time. Some shoppers are concerned about control and privacy issues. Most importantly, consumers have become more comfortable with self service technology.

Many shoppers like the Self-Checkout based on speed & convenience factors. Self-Checkouts appeal to shoppers who are often younger, more educated, and have higher income. Many shoppers feel that it is the “modern, high-tech” way to complete transactions. Many shoppers say they use the Self-Checkout all or most of the time at stores that have them.

Self-Checkout users shop more frequently than regular lane users, but purchase less per trip. Self-Checkout makes sense for these smaller baskets. IHL Consulting (industry analysts) estimates that 40% of shoppers prefer the Self-Checkout. “Research shows that a majority of today’s grocery shoppers prefer Self-Checkout to a cashier assisted checkout experience.” - Phil Lempert, Supermarket Guru.

**Self-Checkout Merchandising**

Shoppers are less likely to be waiting in a line at the Self-Checkout, so they have less occasion to shop. Fewer consumers tend to purchase on impulse at a Self-Checkout, so merchandising at these lanes must be more targeted and compelling. Consumers tend not to shop across
lanes to buy at the checkout. Key impulse items should be available at the Self-Checkout.

The Front-End Focus research found that products merchandised at the Self-Checkout should be driven by consumer buying behavior - high penetration, high frequency and high impulse. This suggests a focus on the major categories like Beverages, Confections and Magazines.

Self-Checkout merchandising is most effective when it addresses the shopper before they are engaged in the purchase transaction. Research demonstrates that effective merchandising at the self checkout lane can have a dramatic impact on impulse purchase activity and generate increased sales for the retailer.

Retailers are losing significant sales by not properly merchandising the Self-Checkouts. While many retailers have implemented merchandising at Self-Checkouts, they have mostly adopted concepts and fixtures from the regular check lanes. This does not recognize the different dynamic at the Self-Checkout. Merchandising must be designed to engage the shopper before they get involved in the transaction.

The chart shows the results of recent audits of 300 supermarkets across the country. Among stores with Self-Checkouts, the merchandising treatment was evaluated. It was found that only 22% had Good/Excellent merchandising defined as carrying all the major categories at or near the Self-Checkout.

Research shows that stores with more complete merchandising at the Self-Checkout yield substantially higher sales per million ACV. The opportunity for improving checkout sales by 40% or more is apparent. Retailers need to understand the huge potential loss of front-end sales when implementing Self-Checkouts.

New merchandising concepts should be designed for Self-Checkouts rather than just adopting regular lane fixtures. Merchandising fixtures should be integrated into the Self-Checkout units rather than retrofitted. Signage should be used to help navigate the Self-Checkout experience and encourage impulse purchases.

Retailers need to recognize the very high return on investment (ROI) from implementation of front-end merchandising for Self-Checkouts. They should conduct tests to evaluate the effectiveness of alternative merchandising approaches at the Self-Checkout.

Retailers need to invest in the merchandising aspects of the self checkout to match the technology. They are currently not taking

### Categories Merchandised at Self-Checkout

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confections</td>
<td>65.8%</td>
</tr>
<tr>
<td>Magazines</td>
<td>60.8%</td>
</tr>
<tr>
<td>Beverages</td>
<td>50.8%</td>
</tr>
<tr>
<td>Gen Merchandise</td>
<td>48.1%</td>
</tr>
<tr>
<td>Other</td>
<td>31.0%</td>
</tr>
</tbody>
</table>

Source: DHC Store Audits

### % Stores with Self-Checkout

- Some Merchandising: 58%
- No Merchandising: 22%
- Strong Merchandising: 20%

Source: DHC Store Audits

### Self-Checkout Sales Per $MM ACV Index By Level of Merchandising

- Limited Merchandising: 78
- More Complete Merchandising: 97
- Most Complete Merchandising: 109

Source: Front-End Focus Research
advantage of the Self-Checkout merchandising opportunity.

**Future of Self-Checkout**

Most industry leaders see Self-Checkout as a rapidly growing and important evolution of retail to self service. "We are seeing a transition to acceptance similar to airport kiosks and ATMs," said one industry expert. Many retailers view Self-Checkout as an emerging source of competitive advantage in the marketplace. "We’ve learned that it is more than just a labor saving device," said a retailer.

Growth will continue at a moderate rate in supermarkets with many new installations in Tier 2 retailers. Tier 1 grocery retailers will need to replace and upgrade older equipment after several years and as GS1 barcodes are implemented.

Growth will begin to accelerate in higher volume Drug and Convenience stores. Major opportunities exist for growth in Mass and other large outlet trade classes. Recent growth has been somewhat dampened by poor economic conditions. Based on industry forecasts, Self-Checkouts are projected to grow by 20+% per year through 2015.

Consumer choice is key in product assortments and it is becoming key to transactions. “Self-Checkouts are one solution, but are not appropriate for all kinds of stores,” said a retailer. There are several criteria emerging for Self-Checkouts.

It must be consistent with a retailer’s overall customer service strategy. Improved efficiency must not come at the expense of customer satisfaction. It may be more for store segments than for all retail stores in a chain. Self-Checkout would seem most appropriate for stores:

- High traffic locations
- Urban stores with smaller basket sizes
- Locations with limited front-end space
- Higher income areas with less shrink
- Younger, tech savvy shoppers

College towns are probably the perfect formats for Self-Checkouts. On the other hand, more rural stores with older shoppers may be less appropriate locations. Retailers that emphasize customer service should be cautious in their use of Self-Checkouts.

Some retailers have experimented with queuing and metro lanes as alternatives to Self-Checkout. Merchandising these is difficult due to the need for queuing lines. Stocking is also an issue since lines are always open to customers. Research shows that some customers using the queuing lanes thought they were faster, while others felt that the...
checkout speed was the same as traditional lanes. Overall checkout buying behavior averaged about 20% lower at queuing lines than at traditional checkout lanes. For a number of the highly-purchased categories, the queuing purchase rates were significantly lower than at traditional checkout lanes.

New technologies will continue to emerge at the checkout. Implementation of GS1 Barcodes (16 digits) will enable new scanning technology for produce and coupons. Kroger has been testing the Advantage Checkout, a tunnel scanner that looks similar to an MRI. The Aisle Buyer Mobile Self-Checkout application allows shoppers to scan and transact via their phones.

Ultimately, Self-Checkout is just one approach to improving the overall shopping experience. Queuing or metro lanes may be considered as viable alternatives to Self-Checkout for some stores. Retail technology will continue to evolve wherever it can increase efficiency or add to customer satisfaction. As these become an accepted part of the landscape, they will be an expected choice available to the shopper. Retailers must begin to compete in the marketplace based not only on their products and prices, but also on the transactional choices they offer.
About Dechert-Hampe

Dechert-Hampe is a consulting firm that specializes in innovative solutions to Sales and Marketing problems and opportunities. DHC works to help clients succeed through solutions that result in tangible change, measurable results, a competitive advantage and a return on their sales & marketing investments.

DHC primary service areas include: Strategy & Structure; Productivity & Performance Improvement; and Research & Insights. DHC is a recognized industry leader in consumer and shopper insights, category and customer leadership, and go-to-market strategy. DHC clients include many of the largest and most successful manufacturers and retailers of consumer goods and services. More information about Dechert-Hampe is available at www.Dechert-Hampe.com.

About Cannon Equipment

Cannon Equipment is a provider of innovative and sustainable solutions that drive impulse purchases of high-margin items to increase profits for brand owners and retailers. Cannon Equipment also specializes in providing value-added closed-loop material handling systems that reduce costs and deliver supply chain efficiencies to manufacturing and supply chain businesses. Operating with the highest degree of integrity and business responsibility, Cannon Equipment, as part of the IMI Merchandising Group, has the strength and backing of its global parent company, IMI plc. Cannon Equipment is headquartered in Rosemount, Minnesota with three manufacturing locations in Minnesota and Tennessee. More information about Cannon Equipment is available at www.CannonEquipment.com.

About Front-End Focus

Front-End Focus is a program of shopper research, data analysis and communication about the Front-End checkout. It was sponsored by an industry consortium of Mars Chocolate, N.A., Time-Warner Retail, and The Coca-Cola Company and involved participation by several leading retailers. The research has been conducted by DHC and focused on expanding the knowledge of shopper behavior, defining Best Practices, and identifying new solutions to checkout merchandising. More information about the research is available at www.Front-EndFocus.com.

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