



F R O S T & S U L L I V A N

50 Years of Growth, Innovation and Leadership

Global PRODUCT LEADERSHIP ASSESSMENT

Self-Checkout Systems

A Frost & Sullivan
White Paper

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“Toshiba Global Commerce Solutions, through its unique value proposition of appealing to retailers looking for innovative self-service technology as well as cost-efficient investments, has been able to match customer expectations across different categories and geographies.”

*- Aravindh Vanchesan,
Program Manager, Frost
& Sullivan*

SIGNIFICANCE OF THE GLOBAL PRODUCT LEADERSHIP AWARD

Key Industry Challenges Addressed by Toshiba Global Commerce Solutions

Retailers are faced with the challenge of reconciling shrinking IT budgets and technology investments while meeting consumer’s requirements that are tending towards a more personalized and interactive shopping experience. Retailers seeking to expand globally are also challenged to standardize hardware and software platforms to minimize long-term total cost of ownership (TCO).

The high price tag associated with self-checkout systems can be intimidating for interested retailers, regardless of their size. Most of them face a challenging task taking the initial plunge as the concept is relatively new to merchants investing in self-service technology. Although the ROI on self-checkout systems has generally exceeded expectations across the industry, retailers continue to cite the possibility of the system failing or repelling customers as a key risk, which remains a deterrent to faster uptake of the technology.

The price of every self-checkout machine can be broadly classified into three categories. The first is the cost of the hardware. The robots, belts, scanners, display screens and other such hardware alone can range from \$60,000 to over \$100,000, which includes installation costs. This number increases more or less linearly with the number of lanes being implemented in the store. The second component is the cost of implementation of the system. This includes tearing down the manual check-out lanes and installing the new ones apart from other mechanical work such as wiring and configuration. The cost for implementation could vary from \$5,000 to \$15,000 or more, again depending on the number of lanes. The third and rather large one-time cost is that of the software and services. The software and services for these machines could cost anywhere between \$50,000 to as high as a quarter million dollars, depending on complexity of integration. Although the expense is a one time investment and can be divided across the number of lanes being implemented, the addition to the total cost is substantial. The five or six figure price quotes are the main hurdle that most retailers and vendors find difficult to cross.

Often, retailers tend to under-staff self-checkout lanes which can cause considerable delays if inexperienced users create a bottleneck. More often than not, consumers who become confused or embarrassed about their inability to complete a transaction, tend to avoid self-checkout in the future. This makes the initial few transactions crucial from the retailer's perspective since the value proposition of self-checkout needs to be established with its customer base.

Very few companies in the self-checkout systems market have been able to balance their business and product strategies to match customer expectations across different retailer categories and geographies. Through its unique value proposition of being able to appeal to retailers looking for innovative self-service technology as well as cost-efficient investments, Toshiba Global Commerce Solutions has continued to be a leading company in this space with a market share of nearly 20 percent.

“The company’s product leadership is a direct consequence of its ability to bring “game changing” technology to its systems and its continuing efforts toward vertical and global expansion.”

*- Aravindh Vanchesan,
Program Manager, Frost
& Sullivan*

BEST PRACTICES AWARD ANALYSIS FOR TOSHIBA GLOBAL COMMERCE SOLUTIONS

“Toshiba Global Commerce Solutions is a leading player in the POS systems market globally - this is a crucial factor for retailers aiming to integrate their self-checkout lanes with the point of sale machines in-store and back office applications in order to present a consistent customer experience.”

*- Aravindh Vanchesan,
Program Manager, Frost & Sullivan*

The Product Leadership Award is a prestigious recognition of Toshiba Global Commerce Solutions’ accomplishments in the self-checkout systems market. For the Product Leadership Award, the following criteria were used to benchmark Toshiba Global Commerce Solutions’ performance against key competitors:

- Product Features/Functionality
- Innovative Element of the Product
- Product Acceptance in the Marketplace
- Provides Customer Value Enhancements

Self-Checkout Systems Market Analysis

Self-checkout systems incorporate check-out functions in perfect tandem with self-service. These machines can complete checkout transactions without the need for intervention by the staff. The functions, which are usually performed by the cashier, are now being taken over by the self-checkout machines. The most significant advantage in implementing these systems is related to labor expenses and productivity. In countries such as the United States, studies indicate that over 20 to 25 percent of the payroll in retail is allocated for cashiering and functions associated with it. The self-checkout systems are likely to alleviate these costs and allow retailers to direct these resources to other critical divisions. A self-checkout system generally comprises of the following parts and functions:

Price reader: This device is often a barcode reader and is used to scan the price of the item purchased.

Display device or Data entry device: The display devices used are often touch screen to enhance user experience. Normal display devices are supported with a keyboard for data entry.

Weighing scale: The weighing scale is used to verify the weight of the product purchased. In some self-checkout system models the items are weighed while on the conveyor belt instead of being allocated a specific segment.

Slot-Machines for Cash: These machines accept cash from the customers for the product purchased. They are usually supported by devices that can render change in return to the amount paid.

The self-checkout process is generally broken into simple steps. The customer first scans the barcode and identifies the item, often using a touch screen display. The items are then weighed as applicable and the weight of each item is verified against its corresponding value in the system. The items are then shifted from the weighing scale to the baggage area where the user finally completes the process by making the payment.

The concept of self-checkout has been popularized all across the world owing to a number of factors. Speed, privacy, and convenience are the three significant advantages that have caught the attention of the customers. Customers benefit by the reduced checkout time as stores increase the number of lanes while also allowing them the privacy to checkout their own purchase. With the self-service trend extending from automated teller machines (ATMs) to retail stores, gas stations, ticket counters, and the hospitality and transportation industries, people are getting accustomed to the concept as a whole. In fact, studies by some market participants indicate that customer loyalty toward vendors is expected to be strengthened by the implementation of self-service.

Retailers and vendors on the other hand, have found a viable solution that can help keep factors such as shortage of labor and labor expenses at check. Even with the high initial investments required to install these systems, the return on investment is estimated to range from 20 to 25 months. The implementation of self-checkout systems also allow retailers to reorganize their staff resources to cater to departments that need more assistance or those that allow for higher profit margins.

Competition in this space is expected to remain high. Price often becomes a deciding factor while vendors choose between the available self-checkout systems.

“One of the major factors behind the implementation of Toshiba Global Commerce Solutions self-checkout systems in retail stores is the marked increase in labor productivity and resource utilization.”

*- Aravindh Vanchesan,
Program Manager, Frost
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“System 6, once implemented, allows retailers to recover investment costs within 12 to 18 months, which is highly critical in encouraging further investment in self-checkout systems.”

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KEY PERFORMANCE DRIVERS FOR TOSHIBA GLOBAL COMMERCE SOLUTIONS

Factor 1: Product Features/Functionality

The Toshiba Global Commerce Solutions Self Checkout System 6 product line, launched last year, is designed to be highly flexible keeping changing consumer behavior and expectations in mind. The modular platform with separate scanning, payment and bagging units allows retailers of all formats, including medium and small-sized retailers, to change their checkout configuration in an agile manner, while also reducing the costs of initial installation and thus making the systems more affordable. System 6 lets retailers choose freely between an integrated system, deploy separate payment stations or cater to mobile shoppers using devices such as a smartphones or tablets. Most importantly, Toshiba Global Commerce Solutions has an established market leadership in the POS systems market globally - this is a crucial factor for retailers aiming to integrate their self-checkout lanes with the point of sale machines in-store and back office applications in order to present a consistent customer experience. Additionally, the huge ecosystem of Toshiba Global Commerce Solutions business and channel partners globally helps ensure that retail clients are provided with the technical support and ongoing maintenance services that are required to effectively implement best practices and manage the self-checkout project from concept to deployment.

Factor 2: Innovative Elements of the Product

The System 6 product line is loaded with several features that help transform the checkout experience for customers.

CHEC software:

The new System 6 is equipped with Toshiba Global Commerce Solutions customizable software - Checkout Environment for Consumer-Service (CHEC) - that offers retailers advanced functionalities. This includes highly retailer-specific graphical interface, XML-based POS interface that efficiently integrates POS systems to self-checkout and remote systems management capabilities. It also allows the system to accept a range of payment methods - cash, credit and debit cards, and electronic benefit transfer (EBT). Toshiba is also the only vendor supporting either Windows or its 4690 operating system.

BOSS capabilities:

Toshiba Global Commerce Solutions Back-Office System Server (BOSS) enables the centralization of critical store functions from the back office, and generates automatic updates to every self checkout lane and multiple reports that enhance effective management. Retailers can opt for an in-store BOSS on a per-store basis or a single centralized BOSS (eBOSS) according to their preferences.

Design:

The System 6's unique design provides retailers and customers the shortest scan to bag distance of any product in the market, which means that the checkout process is quicker and easier for end-users, and offers "above counter" payment interactions. This satisfies an important customer demand for a more expedited and convenient checkout experience.

Factor 3: Product Acceptance in the Marketplace

Toshiba Global Commerce Solutions Self-Checkout System 6 is very easy to install and can be highly customized. The average time to implement the entire solution is falling quickly. Additionally, merchants are provided with a host of complementary services which help realize a return on their investment within a shorter duration. System 6, once implemented, allows retailers to recover investment costs within 12 to 18 months, which is very appealing to its customers. Apart from its core benefits, System 6 can also be leveraged as a marketing tool. The superior customer service facilitated by the implementation levels the playing field for all retailer sites. In the EMEA region for instance, Toshiba Global Commerce Solutions self-checkout is becoming a channel for retailers to bolster their presence in emerging markets while promoting and bringing recognition to their brand name. This is expected to contribute to Toshiba Global Commerce Solutions market share among Tier 2 and 3 retailers as well as expanding its presence across different geographic regions even when high labor costs are not a significant factor. In a market with limited number of turnkey solution providers, many customers prefer Toshiba Global Commerce Solutions due to its global presence and ability to provide self-checkout systems and ongoing support/maintenance through over 40 authorized self-checkout business partners in many geographic regions.

“The huge ecosystem of Toshiba Global Commerce Solutions business and channel partners globally helps ensure that retail clients are provided with the technical support and ongoing maintenance services that are required to effectively implement best practices and manage the self-checkout project from concept to deployment.”

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“In a market with limited number of turnkey solution providers, many customers prefer Toshiba Global Commerce Solutions due to its global presence and ability to provide self-checkout systems and ongoing support/maintenance through its 1,500 channel partners in many geographic regions.”

*- Aravindh Vanchesan,
Program Manager, Frost
& Sullivan*

Factor 4: Provides Customer Value Enhancements

One of the major factors behind the implementation of Toshiba Global Commerce Solutions self-checkout systems in retail stores is the marked increase in labor productivity and resource utilization. Studies reveal that 20 – 30 percent of the payroll in retail is typically directed towards cashiers. With the introduction of Toshiba Global Commerce Solutions solution, this figure can be considerably improved upon. Labor productivity improvements can occur in two ways – the first would be to remove the labor element itself, often as a cost-cutting measure, while the second would be to re-direct the labor or resource into other departments where they can be better utilized. Further, customers indirectly pitch in to the process, thus subsidizing costs by performing the check-out themselves. Over a period of two to three years, this translates into greater profit margin for the retailer, often in turn resulting in lowered merchandise prices or better on-floor customer service which benefit the consumer and create further customer loyalty for the store, thus creating a powerful positive feedback loop.

Toshiba Global Commerce Solutions has leveraged its unique position in the market through decades of understanding retailer requirements with its POS solutions, and thereby identified significant cost savings and product features that enhance the customer experience.

CONCLUSION

Toshiba Global Commerce Solutions is a leading innovator in the global self-checkout systems markets. The company has been recognized for its product innovation strategy in launching the System 6 product line – an advanced self-checkout platform that has made its mark in the industry. By focusing on adding features and design changes that contribute to a dynamic checkout experience in addition to a low Total Cost of Ownership (TCO) for the retailer, Toshiba Global Commerce Solutions has grown from strength to strength in the self-checkout systems space with a market share of nearly 20.0 percent.

In recognition of its strong product offerings, global client base and continued investment in research and development, Frost and Sullivan is pleased to announce Toshiba Global Commerce Solutions as the deserving recipient of the 2012 Global Product Leadership of the Year Award in the Self-Checkout Systems Market.