2011 HOSPITALITY INDUSTRY
SELF SERVICE
TECH STUDY

FINDINGS:
Consumer Opinion Report:
The Competitive Edge of Kiosks
Lodging Report:
Hotels Embrace Mobile Phone, Tablet & Digital Signage Apps
Restaurant Report:
QSR Kiosk Deployments Gain Ground

MULTI-MEDIA &
CUSTOMER CONTROLLED
HOTELS, RESTAURANTS & CONSUMERS RAPIDLY EMBRACE MIGRATION OF
SELF-SERVICE APPS ONTO NEW PLATFORMS
EXECUTIVE SUMMARY
Self-Service Trends 2011
Is hospitality finally warming up to the potential benefits of self-service technology? Consumer trends and economic factors are helping to influence technology adoption and overall perception among operators.

CORPORATE FORUM
Maximize Self-Service Uptime
NCR Corp highlights the major self-service implementation considerations, and how a proactive service and support model can impact system uptime.

CONSUMER OPINION REPORT
The Competitive Edge of Kiosks
Whether talking about kiosks or smartphone applications, consumer use of self-service technologies is growing across the board. Consumers reveal their self-service habits and preferences.

Lodging Report
Self-Service Acceptance Grows in Hotels
Next-gen mobile applications, tablets and digital signage are finding their way into hoteliers’ self-service deployment plans. Plus, hoteliers divulge their top purchasing criteria for kiosks and rate the importance of logistics.

Restaurant Report
QSRs Rapidly Realize Potential of Next-Gen Self-Service
With customer service a top priority, more and more restaurants are embracing the idea of mobile applications to satisfy growing consumer demand. Meanwhile, DVD kiosks present operators with the potential for additional revenue.

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While consumer interest in self-service technology continues to increase, many hospitality operators have been behind the curve in offering the solutions. However, self-service technology is no longer an issue of whether or not to deploy a kiosk. From mobile apps and iPads to room service ordering via a television set, today’s self-service technology requires a multi-media strategy, putting even more control into the consumer’s hands.

Each year, Hospitality Technology tracks the growth and impact of self-service technology on the foodservice and lodging industries, which includes a survey of both HT subscribers and a representative sample of U.S. consumers. This year shows consumers are not only willing to use self-service technology in both lodging and foodservice environments, but 55% of those surveyed would be more likely to visit a hotel that offers the option to check-in/out; likewise, 50% of consumers would be more likely to visit a QSR with a self-service option.

Additionally, interest in the technology and the belief in its potential for improving service in the industry are increasing among hospitality operators. Whether it’s checking into a hotel from a mobile Web site or placing a food order via text message, acceptance is growing across the board.

The 18- to 34-year-old segment also continues to be important, particularly in the restaurant industry. These consumers are the most tech savvy, and not only look for self-service options, but 96% report that having a kiosk in a restaurant is a benefit. The younger age bracket is also more likely to embrace next-generation self-service solutions, including text message and mobile ordering, according to this year’s study.

Both restaurant and hotel operators agree that customer service is the No. 1 reason to offer self-service technology, and for QSRs, the top benchmark for success of a kiosk deployment is customer satisfaction, according to 81% of survey respondents.

As in previous years, hospitality operators in both the lodging and foodservice segments cite the economy as their leading business concern over the next 12 to 18 months, although those numbers are declining. Panic over reduced consumer spending as a result of the economy seems to have lessened as well (Figure 1).

This year concerns over the cost of goods and services are on the rise. In fact, 60% of respondents say it is a leading concern this year, while last year it was only 38%. Other concerns include market competition (39%) and staying technologically up-to-date (35%).

Methodology
This year’s lodging and restaurant survey was conducted over a three-week period in early 2011 by Litchfield Research, an independent research firm. E-mail invitations were sent to Hospitality Technology subscribers and 233 respondents took the Web-based survey. In total, 42,430 hotels and 152,994 restaurants are represented. The “Consumer Opinion Report” in this study is based on a telephone survey of 1,010 U.S. adults, conducted in March 2011.

**LEADING BUSINESS CONCERNS**

What are the leading concerns for your business over the coming 12-18 months?

<table>
<thead>
<tr>
<th>Concern</th>
<th>2011</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economy</td>
<td>64%</td>
<td>70%</td>
</tr>
<tr>
<td>Cost of goods &amp; services</td>
<td>60%</td>
<td>38%</td>
</tr>
<tr>
<td>Reduced consumer spending</td>
<td>47%</td>
<td>68%</td>
</tr>
<tr>
<td>Market competition</td>
<td>39%</td>
<td>43%</td>
</tr>
<tr>
<td>Staying technologically up-to-date</td>
<td>35%</td>
<td>29%</td>
</tr>
<tr>
<td>Recruiting and retaining employees</td>
<td>17%</td>
<td>16%</td>
</tr>
</tbody>
</table>
Maximize Self-Service Uptime

With growing consumer demand for self-service tools, service and support becomes mission critical

HT: Why is self-service technology an important offering for hotel and restaurant operators to consider?
LK: We view self-service technology as being very critical in the hotel and restaurant space because today’s consumers want to interact on their own terms. We know they are time-starved, and the pace people move at continues to accelerate. Consumers don’t want to wait in long lines. They want things now and are used to getting things from multiple channels. Self-service is part of everyday life, whether buying groceries at a store, getting a DVD from a kiosk, checking in at the airport, processing photos, or getting cash from an ATM. It is an expected channel, and that includes in restaurants and hotels. Today, consumers rule. In the past it was business-to-consumer, but now it’s a consumer-to-business, or ‘C2B,’ world.

HT: How does NCR help operators provide consistent customer service and ensure the technology will be available when customers need it?
LK: The journey we are on is from reactive to proactive, and we are transforming service delivery through predictive services. We are very focused on the availability of the self-service solution, and continue to invest in innovation to drive it. We also offer a 360-degree view starting with consulting services to look at the total environment before implementation, and we provide service after the implementation.

NCR supports more than half a million self-service lanes or devices every year. With long-standing expertise in the restaurant and hotel industry, we understand that the success of an operator’s self-service implementation hinges on whether it is optimized and available to serve today’s time-starved consumers.

NCR helps make everyday life possible for consumers by enabling you to provide seamless, successful customer interactions every time.
Looking back over the last couple of years, many hotel and restaurant operators believed the demand for self-service options was too low to have an impact on operations, but each year consumer interest continues to grow. Increasingly time-starved consumers do not want to wait in line, and many view self-service options as faster, offering shorter lines – and in the QSR segment, more accurate in terms of food ordering. In fact, according to those surveyed, many consumers prefer a hotel or QSR that offers a kiosk or other self-service option compared to one that does not.

One of the biggest consumer concerns in the QSR segment is long lines, and half of those surveyed say they’ve walked away from a QSR because of it, while 32% report doing so more than once. This is particularly true for the 18-to 34-year-old segment of consumers, as well as those with children. The survey shows 63% of younger consumers and 61% of consumers with children have left a QSR in the past because of long lines.

Additionally, when asked to rank the benefits of kiosks at hotels and QSRs, faster service and shorter lines top the list for both. However, while privacy ranks No. 3 in importance for hotel guests, for restaurants, accuracy ranks third on the list (Figure 2). More than half (56%) also view the use of a kiosk as giving them more control.

**Walk-Out Snapshot:**
- 50% of consumers have walked out of a QSR in the last year due to long lines.
- 32% walked out more than once.

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Hotels</th>
<th>QSRs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shorter lines</td>
<td>71%</td>
<td>71%</td>
</tr>
<tr>
<td>Faster service</td>
<td>70%</td>
<td>69%</td>
</tr>
<tr>
<td>Accuracy</td>
<td>70%</td>
<td>71%</td>
</tr>
<tr>
<td>Privacy</td>
<td>71%</td>
<td>52%</td>
</tr>
<tr>
<td>More control</td>
<td>64%</td>
<td>56%</td>
</tr>
<tr>
<td>Personalized experience</td>
<td>61%</td>
<td>58%</td>
</tr>
<tr>
<td>No interaction with clerk</td>
<td>40%</td>
<td>32%</td>
</tr>
</tbody>
</table>
in both the QSR and hotel environment, and again, the 18- to 34-year-old segment stands out as important, with 96% reporting kiosks as a benefit in a QSR and 94% at a hotel.

Two years ago, consumer interest in kiosks in hospitality was just starting to peak, and last year the survey showed not only were consumers interested in the option, but also many would be more likely to choose one based on the self-service option (see box, “Consumers Rate Self-Service Options”). This trend is continuing into 2011, with 64% saying they would use a kiosk to check in or out of a hotel, and 63% saying they would use a kiosk to place an order and pay for food at a QSR. Additionally, 65% would use a kiosk to rent and return a DVD, if the option was available to them.

More importantly, offering a kiosk can be a competitive advantage for both QSRs and hotel operators, as 55% of consumers say they would actually be more likely to visit a hotel that offered a self-service check-out option, and 50% would be more likely to visit a QSR that allowed them to use a kiosk to order and pay for food. Also, more than half (55%) would be more likely to visit a QSR offering the option to rent and return DVDs, which is up slightly from last year’s 51%.

Once a hotel or QSR decides to offer a kiosk option, the maintenance and uptime of the unit is critical in the eyes of consumers. Of those surveyed, 15% report using a kiosk at a hotel or QSR, only to find it wasn’t working properly. When this occurred, 62% say they were not aware it was out-of-service beforehand, and 50% found the kiosk didn’t provide information on what to do when it wasn’t working. However, the biggest concern for a hotel or restaurant is that 28% of consumers walked out as a result of the kiosk not working, and the majority were female. This drives home the need for a reliable vendor with proven technology.

Beyond the Kiosk
As the availability and use of smartphones and other mobile devices grows, consumers are becoming more conditioned to using new options for ordering food from a QSR, including the Internet and text messaging. In fact, some QSRs, including Papa John’s and Pizza Hut, now offer free mobile apps for customers to place orders, and Pizza Hut expanded this option to European locations at the end of 2010.

The most popular way among consumers to order food from a QSR outside of the brick-and-mortar restaurant is still via the Internet, with 42% of consumers saying they would do so, particularly the 18- to 34-year old segment (59%). This age group is also more likely to utilize text message ordering (44%), although a total of 27% of overall consumers said they would use their cell phone for this option (see above box).

Of the 42% who say they would use the Internet, 32% report they have done so in the past, with the largest percentage (47%) being 18 to 34 year olds, followed closely by 35 to 44 year olds, at 45%. Additionally, 63% have used their cell phone to call in an order, and 5% have actually used a text message.
As consumers become more tech savvy, the demand for technology, especially self-service, is growing. In the past, many hotel operators didn’t find any benefit in self-service technology, but this year’s survey shows they are changing their minds.

The goal and benefits of self-service technology for hotel operators include increased on-property revenues, lower operating costs and higher guest satisfaction. There are a number of next generation self-service applications that hotel properties can offer guests, and while many are supplementing an already existing kiosk, others are replacing them all together.

In January of this year, for instance, New York’s Plaza Hotel announced the deployment of in-room iPads offering hotel services and local information to guests, and in February 2011, JW Marriott Indianapolis Downtown deployed a program to allow guests use of the in-room television to order room service, make restaurant reservations, request wake-up calls and more.

Last year, 49% of hotel operators reported hotel check-in from a mobile Web site via a mobile telephone as having potential in the hospitality industry, but this year 72% say it has potential (Figure 3). While only 10% have implemented the offering, 26% plan to do so in the future. Also, mobile apps are growing in popularity, with 75% saying the concept has potential in the industry, and 6% are already offering it. InterContinental Hotels Group is among those operators already offering this option for iPhone, Android, and the iPad.

Also growing in acceptance is in-room touchscreens for concierge information or room service, with 70% of operators agreeing the technology holds potential, up from only 48% last year. Morgan’s Hotel Group deployed an iPad concierge solution in its Royalton and Modrain SoHo properties.

**Self-Service Acceptance Grows in Hotels**

*Kiosk placement and reliability is key, while mobile apps, tablets and digital signage move into the space*

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**NEXT GEN SELF-SERVICE IN HOTELS: BEYOND THE KIOSK**

- **Hotel check-in via mobile website on a mobile phone**
  - Has potential use in hospitality industry: 72%
  - Currently offer: 10%
  - Have plans to offer: 26%

- **Hotel check-in via a mobile phone app**
  - Has potential use in hospitality industry: 75%
  - Currently offer: 6%
  - Have plans to offer: 19%

- **In-room touch screens / kiosks for concierge services, room service, etc.**
  - Has potential use in hospitality industry: 70%
  - Currently offer: 17%
  - Have plans to offer: 19%

- **Interactive digital signage in lobby for customer use**
  - Has potential use in hospitality industry: 61%
  - Currently offer: 25%
  - Have plans to offer: 23%
Perhaps the most compelling finding here is the interest in interactive digital signage. A full 50% of hotels offer or plan to offer this technology in public spaces.

**Finding the Right Fit**

Interest in self-service kiosks is also growing and spans all aspects of hotel operations, from mid-scale and boutique hotels to resort, casino and luxury. Overall, 57% of hotels either already offer kiosks or plan to offer them, tipping the scales in favor of deployment: last year, 54% reported no plans to deploy kiosks, this year that number dropped to 43%. In the “pro” camp, 16% of hotel operators report already offering kiosks at their properties; 9% will deploy in the next 12 months; 13% will deploy in 1 to 2 years; and 19% will consider deployment in more than two years (Figure 4).

In previous years, guest demand topped the list of perceived barriers to implementing self-service technology. As guest demand increases, however, this is becoming less of an issue. This year, only 32% of operators believe there is no guest demand for the technology, down from 44% last year (Figure 5). Now, the top reason hotel operators cite for not deploying self-service kiosks is they don’t fit into their particular environment/atmosphere (54%). Many say

**Overall, 57% of hotels either already offer kiosks or plan to offer them, tipping the scales in favor of deployment.**

### BARRIERS AGAINST KIOSK DEPLOYMENTS IN HOTELS

- Self-service does not fit in with my establishment’s atmosphere/environment: 54%
- Self-service does not provide better service: 44%
- No guest demand: 32%
- My organization needs more information regarding the role and benefit of kiosks: 22%
- No executive/corporate support: 20%
- Kiosks are too expensive: 12%
- Our company prefers to focus on online check-in/out: 10%

### KIOSK DEPLOYMENT PLANS IN HOTELS

- Already deployed: 16%
- Will deploy within 12 months: 9%
- Will deploy in 1 to 2 years: 13%
- Will consider deployment in 2+ years: 19%
- No deployment plans: 43%
they “like the guest interaction,” and that “guests want a real person.” Also, 44% believe it does not offer better service.

However, it does appear hotel operators are more educated on the technology, as only 22% say they need more information regarding the role and benefits of kiosks, down from 36% last year and 38% in 2009. And while kiosks were once thought of as too expensive, only 12% cite expense as a barrier, compared to 16% in 2010 and 25% in 2009.

When it comes to business drivers behind self-service kiosk deployment, the ranking order hasn’t changed over the years. Customer service is still the top reason to offer the technology, followed by operational efficiencies, competitive differentiation and increased revenue and up-selling opportunities (Figure 6). When asked how success of a kiosk deployment would be measured, 85% report customer satisfaction compared to only 67% last year. Operators also view usage rate (68%) and cost reductions (51%) as important measures of success.

The majority of hotels offering self-service kiosks utilize them for guest check-in and check-out, but there are many other features that can be useful to both the guest and the hotel property. Figure 7 shows rank order for 10 possible kiosk applications. One growing in adoption is room key encoding and dispensing, with 63% of
operators utilizing this function, up from only 47% last year. Providing guests with maps, directions and area information is also a popular function, with 56% offering this option, and 44% of kiosk in hotels offer airline check-in and boarding pass printing. A new option added to the survey this year is loyalty program signup and account access, and 40% currently offer this functionality. The least-utilized applications for self-service kiosks include coupons, F&B ordering, ATMs and gift cards.

Placement and Uptime Key to Success
Once a hotel operator decides to implement a self-service kiosk, there are important logistics to consider. The most important is placing it in a prominent location (rated first by 91% of respondents) so guests are aware that the property offers the option. Location is followed by high-quality on-screen graphics at 61%. Only 23% believe discounts, specials and coupons should be offered. When it comes to promotion, only 7% believe in-store signage is the way to go, compared to 57% who find active staff promotion to be important.

When it comes to kiosk purchasing criteria (Figure 8), hotel operators rank the vendor’s kiosk expertise and their service/support record as the top two most-important deciding factors, at 49% and 47% respectively. These top two factors are reinforced by the vulnerability that hospitality operators face when a kiosk is out-of-service (the “Consumer Opinion Report” finds that 28% of consumers will walk out if that’s the case without approaching a staffer). Additionally, upgradability is cited as a priority with 40% reviewing this option when deciding what kiosk to purchase. All of these considerations come into play before cost or price, which ranks No. 4 on the list. Durability and a vendor who provides and end-to-end solution are also priorities.

56% of hotel kiosks offer maps, directions and area information.
As consumer adoption of mobile technology continues to evolve, the self-service segment in the restaurant space is moving forward as well. What was once an issue of whether or not to deploy a kiosk for ordering and payment is now a decision of which next generation self-service application to roll out, especially to satisfy the 18- to 34-year-old crowd.

From Web site ordering to mobile apps and text messaging, the way consumers interact with QSRs is changing fast. Even social media platforms such as Facebook are getting involved with apps, allowing consumers to place orders and connect with a chain’s online ordering Web site. This also enables fans to share their ordering activity with friends, which means viral marketing gold to a business.

Of the 154 restaurant operators surveyed this year, with the majority (73%) corporate-owned versus franchisees (27%), two-thirds see potential for one or more next-generation self-service offerings in the restaurant space, and many have plans to introduce at least one of these self-service options in the future.

As shown in Figure 9, ordering food via a mobile Web site from a cell phone was cited by 67% of respondents as having potential in the hospitality industry, and while 22% already offer the option, 27% plan to do so. Also popular is the introduction of mobile apps for the iPhone, Blackberry and Android smartphones, with 15% already launching mobile apps and 30% having plans to do so. And although allowing consumers to text in orders is only offered by 9%, this option is growing in acceptance as 70% believe it has potential in the space compared to only 36% last year.

Shorter lines, faster service and more accurate orders are all benefits cited by consumers using self-service ordering ki-
osks in the QSR environment. In fact, this year’s study shows half of those surveyed have walked out of a QSR because of long lines, and 32% have done so on more than one occasion.

While deployment of kiosks in the space continues to be slow, last year 63% reported no plans to deploy kiosks in their restaurant, and this year the number dropped to 57% (Figure 10), showing resistance may be lessening. Of the 43% with kiosks or kiosk deployment plans, 6% already have the technology rolled out; 7% will be doing so within the year; 10% have a 1-2 year time line for deployment; and 20% will look at deployment in 2+ years.

Breaking Down Barriers
In the past, low guest demand and the cost of technology were major factors standing between restaurant operators and the deployment of kiosks, but these concerns seem to be dropping off, especially since 63% of consumers surveyed this year say they would use a kiosk at a QSR to order and pay for food.

Similar to the hotel industry, a large percentage, almost two-thirds of respondents, feel the self-service kiosk does not fit in with their restaurant establishment’s particular environment (Figure 11). However, the “no guest demand” barrier is shrinking, with only 32% reporting this as an issue compared to 46% last year. Additionally, in both the 2009 and 2010 survey, one-quarter (25%) felt kiosks were too expensive to offer, but this year the number dropped down to only 10%, showing the option is becoming more affordable.

Another barrier that seems to be breaking down is the issue of security. In 2009, 14% of QSR respondents had concerns about security, coupon redemption and
cash-handling needs when introducing a self-service kiosk. That dropped to 11% last year and in 2011 only 5% cited the issue.

**Customer Service Still a Priority**

Once again the top reason restaurant operators give for deploying self-service kiosks is customer service, followed closely by operational efficiencies: the same as hotel operators in the lodging portion of the survey. Figure 12 shows almost half (49%) see offering a self-service kiosk as an opportunity to up-sell customers and increase revenue, and a little more than one-third (36%) view it as a competitive differentiator. This sentiment is reinforced by the consumer survey as more than half report they would be more likely to visit a QSR offering a self-service kiosk option.

The most common feature offered by restaurant kiosks is the option to order and pay at 78% (Figure 13). Also popular is offering customers the ability to sign up for a brand’s loyalty program and the ability to check their accounts. In November 2010, Tasti D-Lite began mounting iPads inside stores for customers to register TreatCards, along with other options such as viewing nutritional information, which at 32% ranks No. 5 in top features list. The availability of nutritional information to consumers (dubbed “menu labeling” by those in the industry) will likely become an automated part of any self-service offering as national standards for nutritional information labeling become mandated.

Ranking No. 3 in popularity among restaurants is the ability to offer gift card sales and printing via the kiosk, cited by 41% of respondents, followed by reservations (36%).

**DVD Kiosks Offer Revenue Stream**

Another self-service option popping up in
various hospitality and retail locations is DVD rental kiosks. In the past, restaurant operators believed the greatest benefit of offering DVD kiosks was increased foot traffic, ranking No. 1 last year. However, this year only 26% find foot traffic to be a benefit, down from 46% last year, bumping it to the No. 2 spot.

Instead, operators are realizing the additional revenue available through the technology, which is now the top reason for offering the kiosks, according to this year’s survey. And although only 23% view DVD rental kiosks as providing increased customer convenience and satisfaction, consumers believe otherwise. In fact, more than half (55%) would be more likely to visit a QSR offering the option to rent and return DVDs, according to this year’s consumer survey.

Keeping with the customer-focused theme, the top benchmark for success of a kiosk deployment according to 81% of respondents is customer satisfaction, followed closely by the customer usage rate (78%). Increased sales, up-selling success and cost reductions are also important measurements.

Vendor Partners Become Priority
Last year, interest in remote management topped the list of important purchasing criteria for QSR kiosks (at 56%) as restaurants likely sought complete accessibility to the technology back-end with little involvement from store-level personnel. This year, however, remote management has given way to more fundamental priorities, such as choosing a vendor that has an end-to-end solution, with 32% citing this as the “most important” criteria in purchasing a kiosk (Figure 14). Also, buying from a vendor with kiosk experience tied in importance with the cost and price of the technology, at 24%.

Conclusion
Overall, the “2011 Hospitality Industry Self-Service Technology Study” shows an increasing interest among consumers to control their purchases and interactions, and a willingness among hospitality operators to explore self-service technology in all its forms: from mobile phone applications and Internet-driven transactions, to the traditional kiosk. As platforms for self-service evolve, consumer-driven applications will likely continue to migrate into new environments, including those once seen as too high-touch.
HOSPITALITY TECHNOLOGY WOULD LIKE TO THANK NCR FOR SPONSORING THE 8TH ANNUAL HOSPITALITY INDUSTRY SELF-SERVICE TECHNOLOGY STUDY

Experience a new world of interaction

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