

## Consumer Commerce



# KIOSKS

Empowering Customers to Close  
the Sale



**Research Topics**

- Consumer Decision & Support Tools
- Merchandising
- Multichannel Strategies

# KIOSKS

## Empowering Customers to Close the Sale

Consumer use of and demand for kiosks will increase, providing retailers with the opportunity to drive incremental sales. Retailers must boost consumer demand for kiosk-based services through contextual placement of the devices—that is, placement at locations in physical stores where they will serve a specific purpose or fulfill a customer need.

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## Key Takeaways

- Lacking relevance and utility, kiosks currently fail to address consumer needs.
- The opportunities that a kiosk strategy provides outweigh the obstacles that hinder widespread adoption of the devices.
- Retailers must map contextual placement of kiosks to consumer needs, limiting their scope to serving a specific function that relates to that specific department or area of the store.
- Retailers must continuously measure the results of kiosk placement—in the forms of usage and, eventually, sales—to assess future investments.

### Related Research

#### **Content and Commerce: Building Commerce Relevance Through Context Creation**

Commerce sites should deploy content primarily for customer retention, not acquisition, based on an understanding of users' needs, users' past relationship with the company, and the complexity of the products offered. Sites should not bombard consumers with irrelevant content aimed at driving transactions; instead, they should use content to bridge the gap between purchases judiciously and help create an ongoing dialogue with consumers. (January 19, 2000)

## Executive Summary

Consumer use of and demand for kiosks will increase, providing retailers with the opportunity to drive incremental sales. Retailers must boost consumer demand for kiosk-based services through contextual placement of the devices—that is, placement at locations in physical stores where they will serve a specific purpose or fulfill a customer need.

The lack of relevance and low rate of deployment by retailers currently discourages consumer usage of this channel, despite advances in kiosk functionality and a high degree of customer awareness. Increased consumer usage of and demand for kiosk-based services will give retailers the opportunity to drive \$6.5 billion in sales directly through kiosks and influence an additional \$77 billion in sales resulting from research performed at a kiosk. Contextual placement will increase consumer adoption of services offered via kiosks, resulting in a measurable impact on sales.

How much will kiosks drive in actual or influenced retail sales revenue? How can retailers drive the consumer adoption of kiosks? What unmet consumer needs can be fulfilled through a kiosk?

- **Advances in Kiosk Functionality Enable the Marriage of Web-based Content and Online Stores.** Despite advances in kiosk functionality and growing customer awareness of this information and sales channel, lack of relevance and a low rate of deployment by retailers discourage consumer usage of kiosks.
- **Kiosks Provide Retailers with New Revenue Opportunities.** Consumer usage of and demand for kiosks will increase, providing retailers with the opportunity to drive \$6.5 billion in sales directly through kiosks and an additional \$77 billion in sales influenced by research performed at a kiosk.
- **Retailers Must Harness the Internet to Unite Stores and Increase Level of Service to Customers.** Retailers must use kiosks to meet customers' unfulfilled needs. Contextual placement will increase consumer adoption of kiosks, resulting in greater usage for a measurable impact on sales.

## Landscape

### Advances in Kiosk Functionality Enable the Marriage of Web-based Content and Online Stores

Despite advances in kiosk functionality and growing customer awareness of this information and sales channel, lack of relevance and a low rate of deployment by retailers discourage consumer usage of kiosks.

#### Kiosks Evolve Away from Simply Providing Static Information

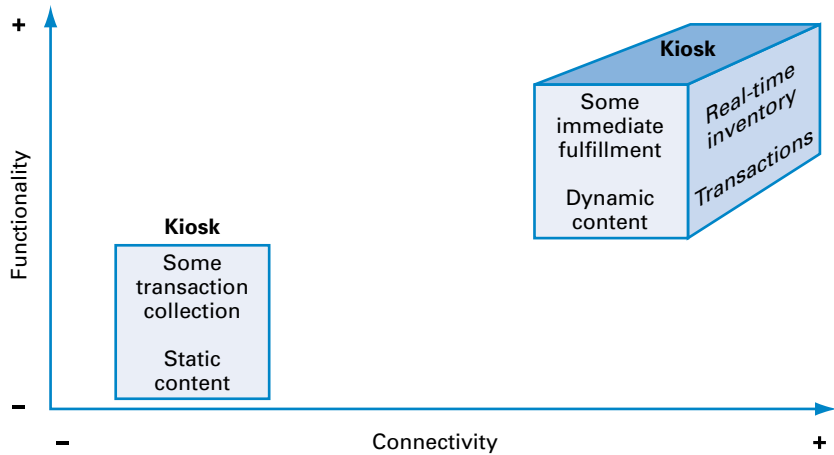
Since the advent of ATMs in the late 1970s, retailers have experimented with kiosks to provide information and encourage self-service.

Since the advent of ATMs in the late 1970s, retailers have experimented with kiosks to provide information and encourage self-service. These attempts often failed because the kiosks themselves were non-networked, standalone memory units or were CD-ROM-based and therefore required regular, expensive upkeep and manual updating to refresh content. Content was typically created specifically for the kiosk, and often grew outdated as retailers waited to receive the next version of the updated software from the parent company. Functionality was also limited by the disconnected nature of the kiosk.

Many kiosk strategies lapsed when the inefficient technology failed to attract consumers or resolve any of the problems that the devices were implemented to address. With the sudden growth in the popularity of the Web, however, many retailers found themselves with a plethora of content that was created for Web sites but that could be leveraged in the physical stores as well. Implementation of this Web content in physical locations can aid retailers struggling with issues such as high turnover rates among sales staff, lack of physical space for inventory, and/or extensive transaction queues.

Web-Enabled Kiosks Enhance Potential Customer Value

Fig. 1 The Evolution of Kiosk Functionality



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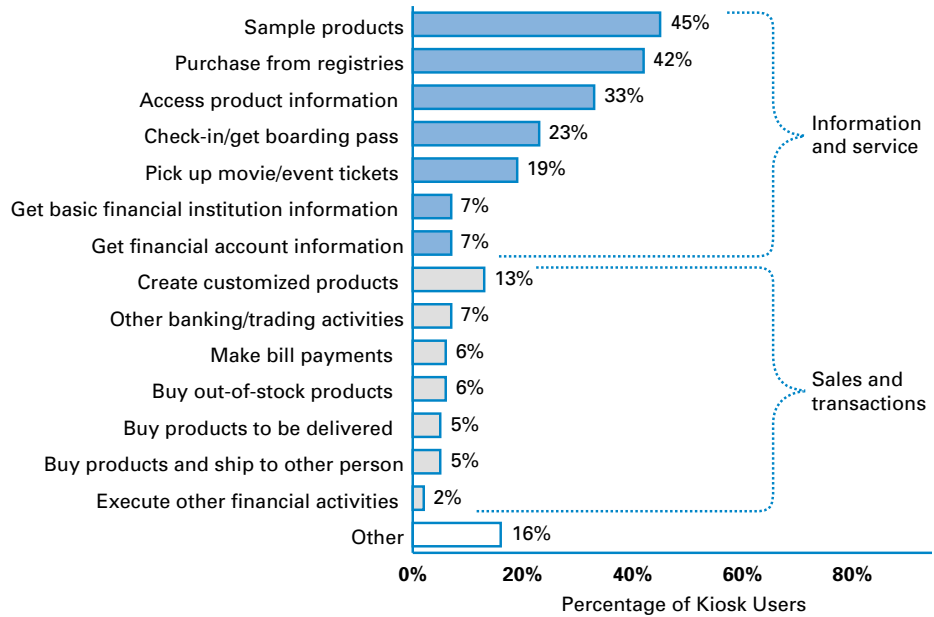
High Consumer Awareness Persists Despite Infrequent Kiosk Usage

Despite difficulties associated with kiosks based on CD-ROM storage or hard-drive storage and the relative scarcity of Web-enabled kiosks, a recent Jupiter Consumer Survey reveals that 77 percent of consumers have noticed kiosks in stores, and 41 percent have used one. Consumers have used kiosks primarily to gather information or provide basic self-service, such as accessing account information. Often, stores provided straightforward, static product information via kiosks; for example, before upgrading to Web-based kiosks, Sephora offered CD-ROM-based kiosks that were updated with product information each season. Sales and other transactions (e.g., purchasing out-of-stock products and paying bills) currently represent a smaller portion of the activities that consumers perform via kiosks because retailers have only recently begun to roll out these advanced offerings.

Consumers have used kiosks primarily to gather information or provide basic self-service, such as accessing account information.

Consumers Primarily Seek Information from Kiosks

Fig. 2 Activities that Consumers Have Completed via a Kiosk



Question asked: What have you used a kiosk for?  
 Source: Jupiter/NPD Consumer Survey (1/01), n = 934 (US only)  
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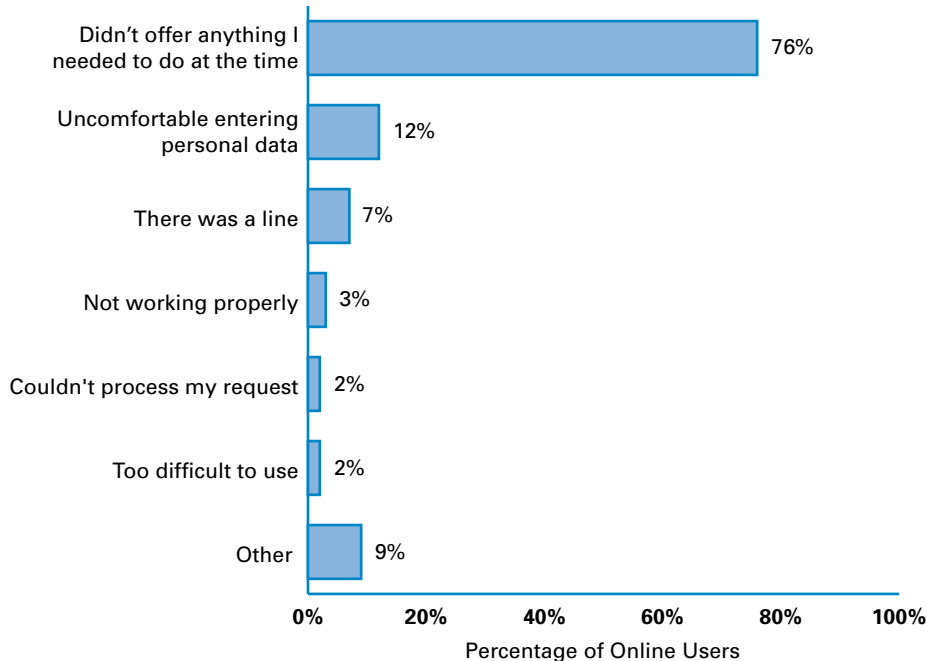
Current Kiosk Offerings Fail to Address Consumer Needs

Of consumers who have not used a kiosk, 76 percent have avoided using one because it was unable to provide any service they needed at the time. This behavior reflects the limitations of the static information-focused kiosks available to date; unless consumers need to research a complex, high-consideration product such as a home entertainment system before buying it, they have little need for static product information. In addition, kiosks must be physically available to consumers at the moment they are looking for a product or information.

Several years ago, in an initial rollout, Kmart placed kiosks near customer service desks rather than in the most relevant departments. This early effort was unsuccessful because although customers may notice a kiosk at a store entrance, they will not consider using it if they need information or service while they are shopping in another part of the store.

### Irrelevance and Lack of Functionality Discourage Use

**Fig. 3 Barriers to Consumer Use of Kiosks**



Question asked: If you saw a kiosk previously but chose not to use it, why not?

Source: Jupiter/NPD Consumer Survey (1/01), n = 825 (US only)

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### Kiosk Applications Vary Across Industries

To date, commerce companies have used kiosks at three key phases in the purchasing cycle: pre-transaction, transaction, and post-transaction.

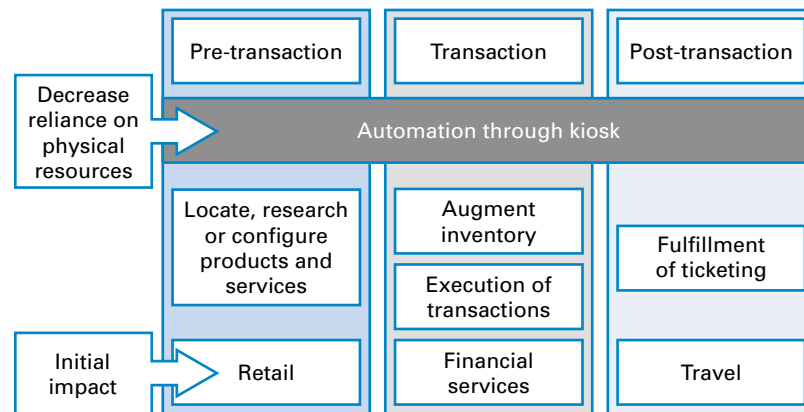
- Pre-transaction.** Retailers can bring customers closer to completing a transaction by offering them the ability to locate, research, or configure products and services through a kiosk. Empowering consumers in this way decreases their reliance on sales associates and allows the associates to focus on more complex transactions, resulting in better customer relations. The retail industry, one of the first to experiment with the implementation of kiosks, has launched most of its early efforts to address this stage of the purchasing process, typically to provide access to gift registries or static product content.

- Transaction.** Transactional kiosks allow customers to actually complete a transaction by ordering or purchasing products and services directly from inventory listed on the kiosk. This includes purchasing inventory that is not available at the physical store, ordering oversized items to pick up in the store, or executing transactions such as stock trades. Given the limited fulfillment options offered by kiosks to date, transactional kiosks have been most popular with the financial services industry because providing financial services requires no maintenance of physical inventory.
- Post-transaction.** Despite the fulfillment limitations of kiosks, post-transaction kiosks can provide a clear value proposition to the consumer: avoid lines and save time. Airlines have embraced the devices to expedite passenger check-in; kiosks can run through the required security questions and printers enable instant boarding-pass production.

As retailers continue to evolve their kiosk strategies, they often expand the focus to include additional elements of the purchasing cycle with the hope of achieving further efficiencies.

◆◆◆◆ Companies Can Maximize Cost Efficiencies by Facilitating Customer Self-Service

**Fig. 4 Industries Impacted by Automating Specific Components of the Transaction Cycle Through Kiosk Initiatives**



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# Outlook

## Kiosks Provide Retailers with Revenue Opportunities

Consumer usage of and demand for kiosks will increase, providing retailers with the opportunity to drive \$6.5 billion in sales directly through kiosks and an additional \$77 billion in sales influenced by research performed at a kiosk.

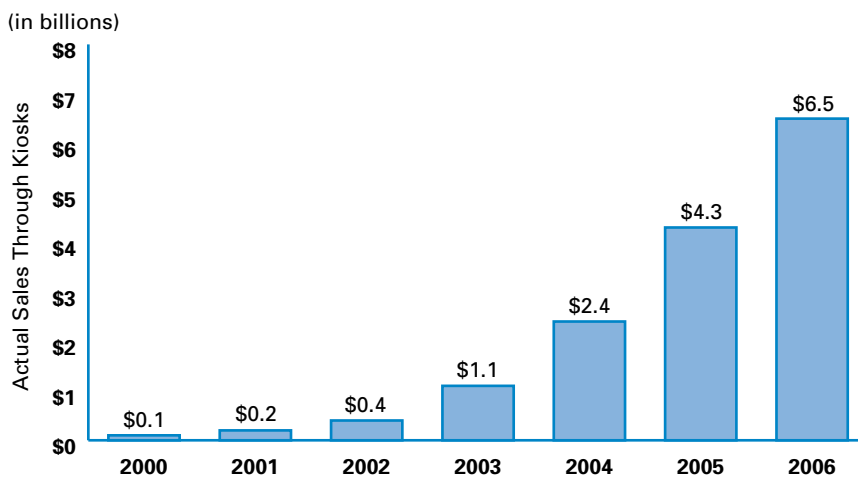
### Sales via Kiosks to Reach \$6.5 Billion by 2006

Consumers who are already comfortable transacting online will be similarly at ease purchasing through a kiosk. Jupiter projects that consumers will purchase nearly \$200 million in goods and services through kiosks in 2001; this total will grow to \$6.5 billion in 2006, fueled by the increasing number of retailers that offer transactional kiosks in their physical locations. Three million users will make purchases via a kiosk in 2001, averaging \$57 per buyer. In 2006, the number of consumers who transact via kiosks will rise to 23 million, representing 11 percent of the total online population and spending an average of \$289 per buyer.

Consumers who are already comfortable transacting online will be similarly at ease purchasing through a kiosk.

◆◆◆◆ Kiosks Will Drive an Increasing Amount of Retail Sales

**Fig. 5 Projected Retail Sales Revenue Earned via Kiosks, 2000–2006**



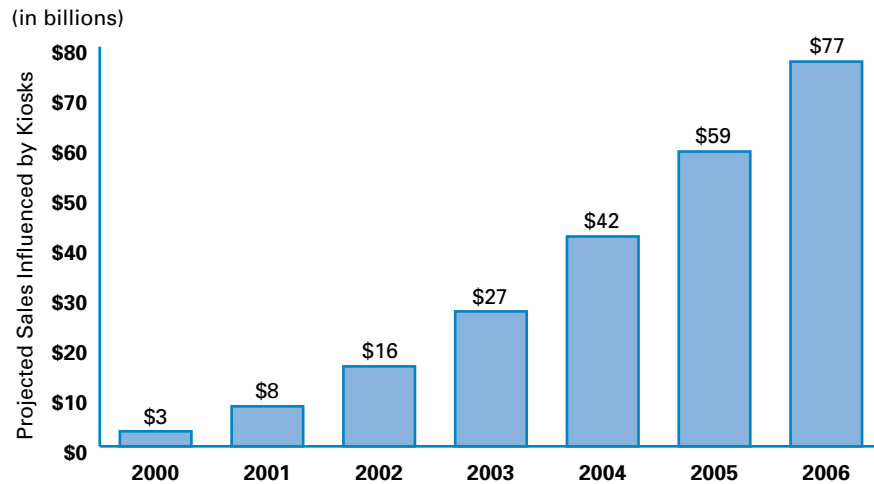
Note: Excludes travel, prescription drugs, and financial services  
 Source: Jupiter Kiosk Shopping Model, 3/01 (US only)  
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### Kiosks Will Influence an Increasing Number of Sales

While growth in sales via kiosks will provide an opportunity for retailers to capture revenue, the potential for kiosks to influence an in-store purchase is much larger. The use of kiosks as an informational tool during the purchasing process will help entice consumers to complete a purchase. In 2001, Jupiter projects that kiosk usage will influence \$8 billion in off-line sales, a figure that will grow to \$77 billion in 2006. The number of kiosk users will increase from 34 million in 2001 to 91 million in 2006.

◆◆◆◆ Kiosks' True Value Lies in Their Influence on Impending Sales

**Fig. 6 Projected Retail Sales Revenue Influenced by Kiosks, 2000–2006**



Note: Excludes travel, prescription drugs, and financial services  
 Source: Jupiter Kiosk Shopping Model, 3/01 (US only)  
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### Opportunities Outweigh the Obstacles that Hinder Widespread Kiosk Adoption

Consumer adoption of kiosks depends on whether retailers can overcome a number of obstacles, including the following:

#### Easily Surmountable Obstacles

- **Nonintuitive software.** Early versions of the software were insufficiently user-friendly, and poor interface design made the kiosks' purpose unclear

to users. Future versions of software must be simple and intuitive in design, particularly if staff may not be available to assist users.

- **Unreliable hardware.** In initial deployments, many providers created equipment not durable enough to withstand repetitive consumer use. Special attention to the maintenance of kiosks is crucial to facilitating consumer adoption.
- **Lack of necessary functionality.** In the past, kiosks were not primarily targeted at specific functions; instead, they offered stagnant content. Retailers must continue to experiment with kiosks over the next two years to determine which applications are most relevant to their customer base.

### Major Obstacles

- **Lack of human interaction.** In-store customers want to be reassured that they can speak to a sales associate immediately if the kiosk doesn't provide the help they are looking for.
- **Privacy concerns.** Consumer reluctance to enter sensitive personal or payment information on a public terminal may impede use; consumer trust must be built through explicitly reassuring data security.

Retailers will find ways to overcome these barriers as they fine-tune their kiosk strategy, become more experienced with technology, and improve the user interface. Consumers have become accustomed to using the Internet as both a research vehicle and a transaction vehicle; this behavior can migrate the behavior to the physical location if retailers take steps to facilitate the transfer, such as the following:

### Enhancing Consumers' Experience

- **Improved interface.** Currently in the experimentation stage of their kiosk rollout, retailers are adopting user-friendly, improved interfaces based on their Web site. Specifics of navigation and design will continue to evolve throughout the experimentation phase.
- **Dynamic product content.** Dynamic content will be current and therefore most relevant. Consumers who have become accustomed to conducting product research online will take advantage of the ability to do "spot" research within the context of the brick-and-mortar store.

Retailers must continue to experiment with kiosks over the next two years to determine which applications are most relevant to their customer base.

Increased availability  
of kiosks will further  
drive awareness  
and the likelihood that  
customers will experiment  
with self-service.

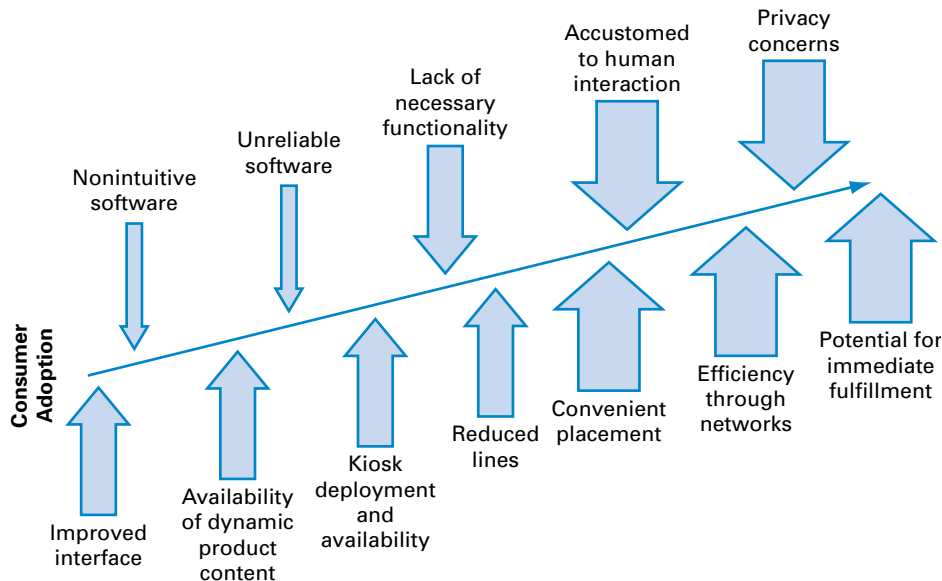
- **Alternative to waiting in line.** If consumers have a clear alternative to waiting in a long line for transactions or service, they will choose it. In-store education about these self-service alternatives through signage and sales associates is essential.
- **Deployment of kiosks by major players.** Increased availability of kiosks will further drive awareness and the likelihood that customers will experiment with self-service.

### Launching Initiatives to Drive Adoption

- **Convenient placement.** Locating kiosks in action areas (e.g., specific departments or a waiting area) will make kiosks relevant and convenient to consumers' needs.
- **Efficiency through networks.** Similar to the way that networking ATMs to enable broader deployment for all banks made ATMs more convenient and encouraged adoption, the creation of networks for certain types of kiosks (e.g., those for self-check-in kiosks at airports) will increase their relevance and help drive down the cost of deployment.
- **Immediate fulfillment or gratification.** Convenient, immediate fulfillment of a purchase will be a powerful driver of consumer adoption; businesses will be able create space and staff efficiencies by automating simple processes such as travel and movie ticket pick-up as well as software and digital music delivery.

## Convenience and Efficiency Will Help Kiosks Overcome Obstacles

Fig. 7 Drivers and Inhibitors of Consumer Kiosk Adoption



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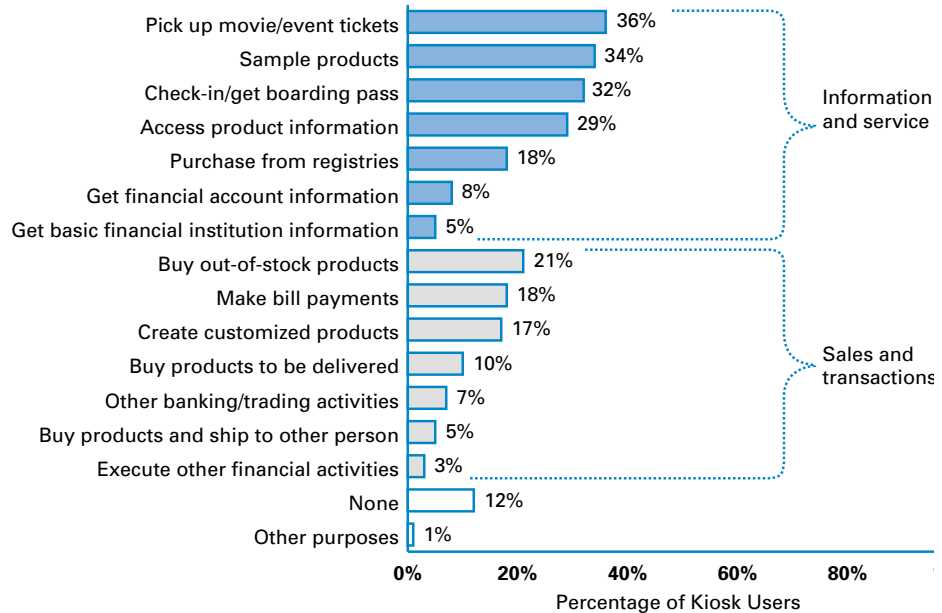
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### Strong Consumer Interest Will Fuel Adoption of Kiosks

Although many consumers have never used a kiosk or have only used one to access basic information, a recent Jupiter Consumer Survey strongly indicates that consumers would like retailers to expand the basic services offered by most kiosks into services that enable the convenient completion of frequent, simple chores and transactions (e.g., making bill payments) as well as more complex transactions (e.g., creating customized products). Survey results also indicate that access to product information and product samples such as audio or video clips are also in high demand from consumers as they seek to make informed purchasing decisions.

Consumers' Preferences for Kiosk-based Services Indicate the Existence of Transaction Opportunities

Fig. 8 Activities that Consumers Would Be Willing to Complete via a Kiosk



Question asked: Which of the following activities would you be most interested in doing at a kiosk?  
 Source: Jupiter/NPD Consumer Survey (1/01), n = 2,294 (US only)  
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Increasing Levels of Integration Drive Kiosk Functionality

Retailers can select from varying degrees of sophistication when implementing kiosk functionality, depending on the level of integration among a retailer’s physical locations, Web site, and inventory and fulfillment capabilities, as well as the connectivity available within the physical locations. The level of integration and connectivity will determine the retailer’s ability to derive efficiencies from the kiosks.

- **Basic strategy.** The most basic kiosk strategy requires no integration and little connectivity, and enables basic product information dissemination. For example, bathing suit designer Malia Mills showcases her Web site, MaliaMills.com, on a desktop computer in one of her three New York locations.
- **Intermediate strategy.** A mid-tier kiosk strategy requires partial integration and a high level of connectivity in order to offer dynamic product content

to answer complex customer inquiries and enable transactions through the Web site. The Title Sleuth kiosks deployed by book and music retailer Borders offer enhanced product content such as staff recommendations and book reviews, and provide information on in-store events using software from NetKey. Customers can also access in-store inventory and check company-wide availability of products not available in the current location.

- **Expert strategy.** An advanced kiosk strategy takes advantage of all the available efficiencies stemming from complete integration and a high level of connectivity, which enable the kiosks to be linked to a Web-based point of sale (POS) system to provide increased payment functionality. Customer behavior at the kiosks can be linked to information gathered on the retailer's Web site. Staples deployed a storewide Web-based POS system and kiosk network that allow customers to order products via a kiosk and pay at a register.

## Kiosks Will Provide Incremental Revenue Opportunities

Retailers can seek partnerships to capture incremental revenue, such as advertising and placement fees. A retailer could provide a partner placement on its kiosk to generate advertising or sponsorship revenue, enable revenue sharing from product sales and lead generation, or generate placement fees, as well as bolster the quantity of products and services available on the kiosk. Outpost.com struck a partnership with Wolf Camera through which Wolf was able to expand its in-store product selection from cameras and related equipment to include computer hardware and software available through the Outpost.com kiosk. However, retailers must guard against the potential pitfalls of this strategy—specifically, mission creep and space allocation, which may dilute their overall offering and distract from the initial intended store visit—and maintain the focus of the initiative so consumers do not become confused about the purpose of the kiosk.

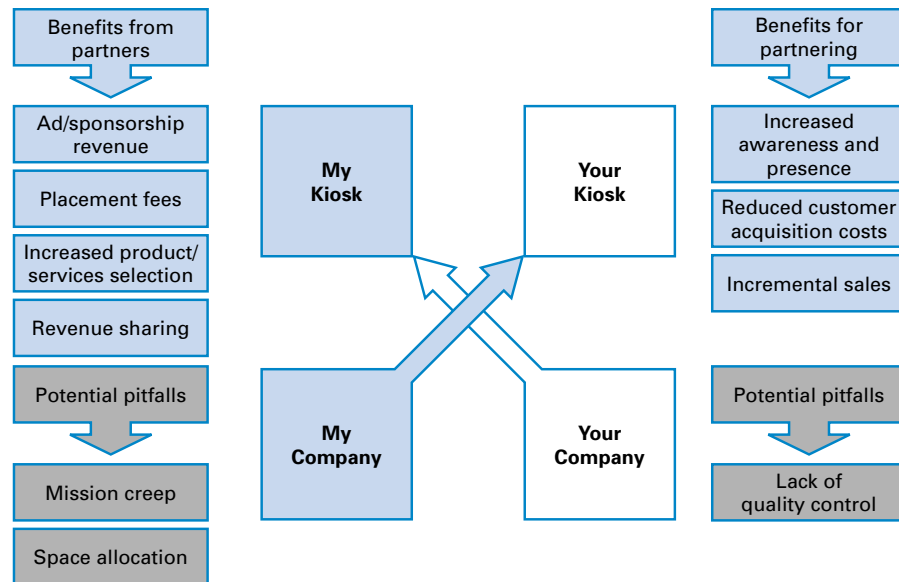
Another strategy to gain incremental revenue is for a retailer to gain space on a partner's kiosk in order to increase awareness and presence of its own brand, reduce customer acquisition costs, and capture incremental sales through the partner's kiosk. However, the retailer sacrifices some control over quality to the partner and risks brand damage due to poor placement, upkeep, or signage, and lack of customer service. For example, retailer X participates in retailer Y's kiosk strategy, placing its online store either as the sole retailer within the kiosk or as part of a

A retailer could provide a partner placement on its kiosk to generate advertising or sponsorship revenue, enable revenue sharing from product sales and lead generation, or generate placement fees, as well as bolster the quantity of products and services available on the kiosk.

group of retailers. While retailer X is looking to increase its exposure and drive sales through retailer Y’s kiosk, retailer X must monitor the kiosk to ensure that retailer Y is adequately supporting the partnership, particularly in terms of in-store promotions, maintenance, and employee participation. Examining actual usage to measure the number of incremental customers and spending will be critical for comparison with other sales channels of the existing business to ensure success.

Advanced Kiosk Strategies Will Provide Opportunities for Incremental Revenue

Fig. 9 Incremental Revenue Opportunities Through Partnerships



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## Mandate

### Retailers Must Harness the Internet to Unite Stores and Increase Level of Service to Customers

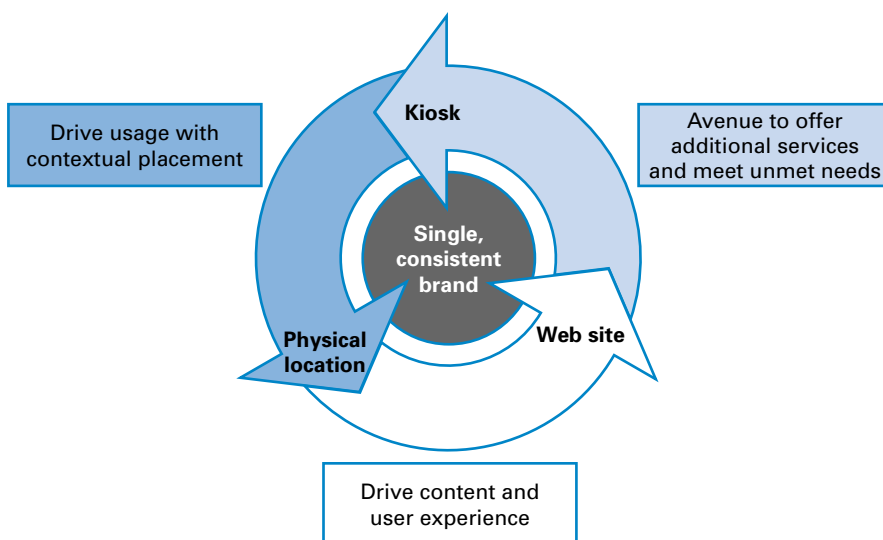
Retailers must use kiosks to meet customers' unfulfilled needs. Contextual placement will increase consumer adoption of kiosks, resulting in greater usage for a measurable impact on sales.

#### Kiosks Will Improve Customer Communications

Kiosks must serve as an integrated channel for communication with customers in order to provide enhanced customer service. This involves more effort than simply placing the Web site within the physical location; retailers must give kiosks an active role in the sales cycle—a role that is fed by the assets of the physical location (e.g., through contextual placement in a specific department) and the assets of the Web site (e.g., content and transaction capabilities). Kiosks can offer a simplified user interface that

#### ☐☐☐☐ Kiosks Will Serve as an Integrated Channel for Customer Communication

Fig. 10 Integration of Kiosks with the Internet and Physical Locations



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varies from the Web site (e.g., via a touch screen), but they should maintain a consistent look and feel to ensure brand recognition and integrity.

### Contextual Placement Dictates Strategic Objectives

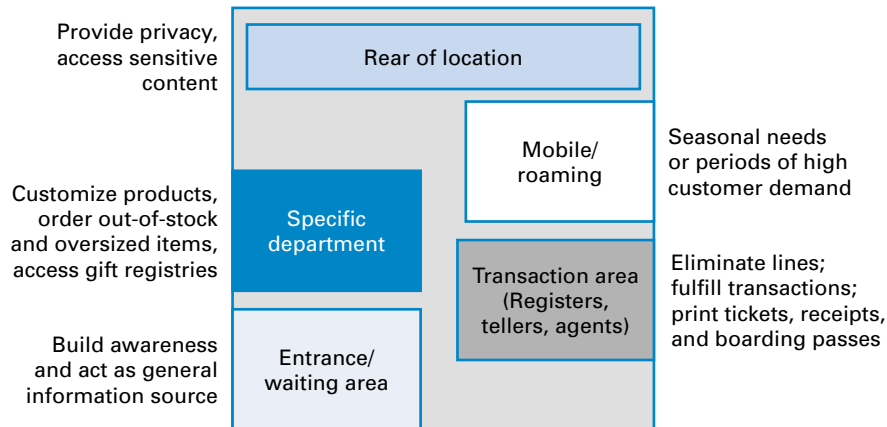
Successful kiosk initiatives depend on strategic contextual device placement that encourages consumer adoption and meets unfulfilled customer needs.

Successful kiosk initiatives depend on strategic contextual device placement that encourages consumer adoption and meets unfulfilled customer needs. A kiosk must be available at the location where customers' need for one arises; otherwise, consumers will be forced to seek out the kiosk to perform a specific task, and the retailer will risk losing the sale. For example, Gap initially placed kiosks in flagship stores in Manhattan and San Francisco to promote its Web site. The kiosks were arranged with couches, creating a lounge area in which customers could sit and browse the Web site. This rollout was considered largely a failure in terms of sales and customer use, but what the kiosks lacked was true purpose. Rather than offering the entire Web site, Gap should provide kiosks focused on specific products (e.g., jeans or khakis), where customers can order items that are out of stock or locate the desired product at a nearby store, thereby increasing the kiosks' value to customers.

When Staples deployed kiosks into its physical locations, the company opted to place kiosks in up to four strategic areas of each store to fulfill customer needs in specific departments: furniture, technology, build-to-order PCs, and the "pack and ship" self-service center. By placing the kiosks in specific departments or areas, customers were able to easily understand the purpose of the kiosk and use it to satisfy their needs in those areas. Similarly, Northwest Airlines places kiosks for passenger self-check-in both in the main terminal and along the concourse near the gates to expedite service for passengers with no baggage.

## Companies Can Reach Retail Objectives Through Strategic Placement of Kiosks

**Fig. 11 Guidelines for Contextual Placement of Kiosks**



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## Case Study: Fidelity Uses Kiosks to Divide and Conquer

**Participant:** Fidelity Investments provides banking services, mutual funds, discount brokerage services, retirement services, estate planning and wealth management services, securities execution and clearance, and life insurance to consumers and institutions worldwide.

**Goals:** Fidelity launched its initiative with the goal of leveraging its Web site content to assist consumers and help them save time and cut costs by automating standard processes to make branch visits more efficient.

**Execution:** Fidelity examined consumer behavior in its branches and determined that consumers were primarily interested in three kinds of interaction: depositing or withdrawing money, managing their portfolios, and learning about Fidelity's product offerings. Fidelity determined that it could ease the service burden on its branch employees by reallocating preexisting Web site content and devoting the following separate Web-enabled Internet kiosks to those three basic customer needs:

- **Automated Deposit Modules (ADMs).** A next-generation ATM, this check-depositing device allows quick deposits and is designed to reduce lines for tellers.

- **Trading kiosks.** These kiosks allow Fidelity customers to access and manage their online portfolios from the branch.
- **Discover kiosks.** These kiosks provide in-depth information on Fidelity's financial products and are typically placed in the waiting area for consumers to use while they wait to talk to branch personnel. The devices are designed to provide a base of information so that the representative can work more effectively with an educated consumer.

Fidelity decided to divide the kiosks according to use, making each kiosk's function obvious and reducing time spent waiting on line. Ninety-five percent of branch personnel have been trained in the technology; they oversee the kiosks and direct consumers to the appropriate one. Each branch also has at least one "E-master" who has expertise with both the Fidelity Web site and the kiosks.

**Economics:** Fidelity's ADMs cut processing time in half, substantially boosting the branch's capacity for handling complex deposit transactions and improving efficiency through automation. This will reduce reliance on branch employees to process deposits and allow them to focus on more complex customer demands.

**Bottom Line:** Fidelity's kiosk strategy allows it to leverage existing assets (i.e., Web content and online trading functionality) to make its branches more productive. Because the strategy is in its infancy, however, Fidelity must determine whether the kiosks actually appeal to branch customers, many of whom visit the branch rather than the Web site expressly to speak with representatives. The ADMs will succeed in their role because they closely resemble the popular ATM, and because the ADM's primary function, check depositing, is not available via the Web. Branch representatives should use Trading kiosks to introduce customers to online trading, thereby reducing future branch traffic. Ultimately, the kiosks must provide a productive link between Fidelity's online and off-line channels.

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## Majority of Kiosk Use Will Surround Specific Products or Departments

Contextual placement of kiosks will drive functionality. Kiosks placed in specific departments are best equipped to fulfill an immediate customer demand (e.g., providing product information content, additional selection options, customization capability, or home delivery options) and address the specific stage of the purchasing cycle that the customer is in. For example, with high-consideration products such as consumer electronics, product specifications and comparison tools will aid consumers during the product evaluation phase. The type of kiosk that a retailer should

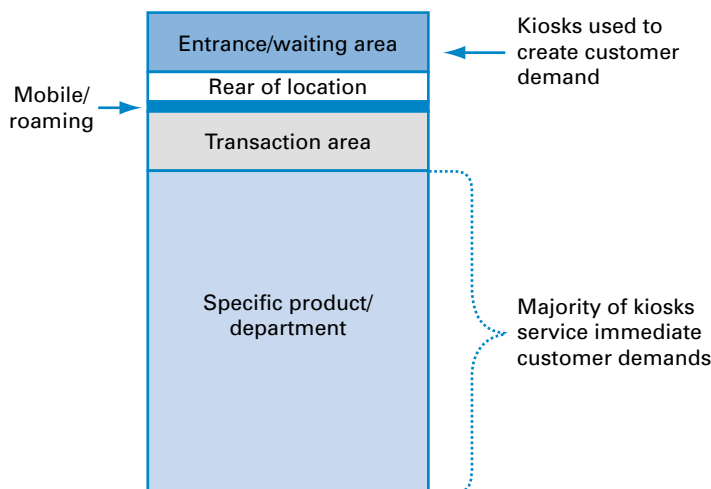
implement will depend on the depth of selection that it offers within a product category; a retailer such as Kmart may opt to provide a kiosk focused on the entire consumer electronics department, while a category leader like Circuit City or Best Buy might dedicate kiosks to assisting customers with specific types of products (e.g., DVD players, TVs, or stereo receivers). Retailers that prefer to build a customer relationship through its sales associates can deplot kiosks that provide only content, allowing a sales associate to close the sale.

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Kiosks placed in transaction areas will also serve an immediate customer demand (i.e., eliminating lines) by providing self-service check-in and self-service check-out capability, printing receipts and boarding passes, or allowing bill payment. Retailers such as grocers or mass merchandisers can use kiosks to reduce lines at cash registers by adding scanners for self-checkout in the register area. Mobile kiosks can also be set up to help with seasonal demand for products or services—for example, ticket sales for the first day of an event or movie, or the sale of popular toys during the holidays.

Retailers Must Use Contextual Placement to Fulfill Customers' Needs

Fig. 12 Successful Kiosk Strategy Dedicated to Specific Purpose



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## Retailers Must Launch Initiatives Designed to Lead Customers to Kiosks

Simply placing kiosks within a physical store location will not change consumer behavior; retailers must encourage use through specific initiatives designed to educate consumers about the value that kiosks can provide.

- **Awareness.** Retailers must introduce customers to the existence and initial deployment of kiosks and their functions through various points of contact before a store visit: integration into advertising campaigns, direct mail (e.g., billing statements, catalogs, or postcards), and information on the Web site. Aligning communications with the kiosk function (e.g., promoting bill payment kiosks in billing statements) will help make a connection in customers' minds.

Northwest Airlines promotes its E-Service Centers on the Web site with an explanation of the services the kiosks can provide and basic instructions on how to use the devices (e.g., what materials the customer will need in order to use them). The site also lists which airports currently offer the Northwest kiosks and which airports offer Continental Electronic Service Centers, also available for use by Northwest passengers.

- **Interest.** In-store visits to the location are the greatest opportunity to persuade customers to use the kiosks via signage, strategic placement, and employee encouragement. Store employees must be trained in the functionality of the kiosk and must be able to walk customers through a session in order to enable self-service later. Retailers must secure the support of their store employees by offering incentives and crediting the location for transactions placed through the kiosk.

To generate awareness for its Web initiative, Kmart places some of its Bluelight.com kiosks, with signage, at the front of stores to leverage the greatest amount of foot traffic.

- **Trial.** The only opportunity to directly influence kiosk use is during a customer's visit to the store location. Contextual kiosk placement and the use of targeted promotions and incentives offering a reward for utilizing the kiosk, will be key drivers of customer trial.

US Airways offers members of its Dividends program a bonus of 1,000 frequent flier miles upon their first use of a kiosk to self-check-in and print a boarding pass, or to purchase tickets; the airline offers an additional 50 bonus miles for each subsequent use.

- **Loyalty.** Once retailers have successfully persuaded customers to try kiosks, they must work to cement kiosk use into consumer behavior

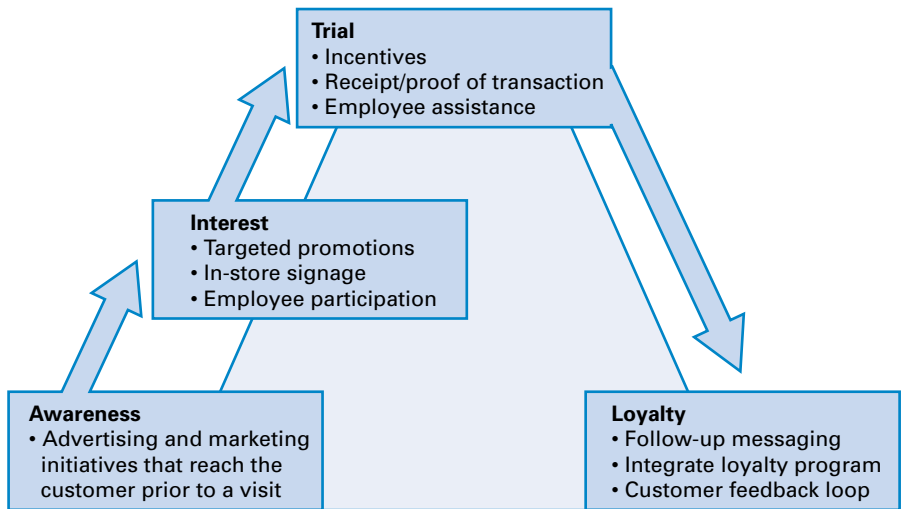
In-store visits to the location are the greatest opportunity to persuade customers to use the kiosks via signage, strategic placement, and employee encouragement.

patterns and encourage repeat access. A strategy to encourage repeat use can include the implementation of loyalty programs and exclusive offers, but factors such as ease of use will be important in driving repeat behavior because a single negative experience will discourage customers from further kiosk usage. In addition to focusing a kiosk solely on a specific function, for example, the interface should allow customers to store shipping information to speed the checkout process if ordering out-of-stock items, or to store and access product research done in the location or at home.

Macy's, for example, could offer customers the ability to access an online address book via an in-store kiosk to simplify gift giving. This will save customers time and enable them to ship products directly to recipients without having to make an additional trip to retrieve shipping information.

**Retailers Must Encourage Usage to Spur Consumer Adoption**

**Fig. 13 Driving Consumer Adoption of Kiosks**



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## Stage of Kiosk Life Cycle Determines Key Measures

The success of any kiosk strategy will be determined by the ongoing measurement and analysis of use (or lack thereof) by customers and employees. The most obvious measures will be in direct sales generated via the kiosk or cost savings as a result of kiosk usage, but these effects will not be visible immediately. Over time, the results will increase in complexity but will become more meaningful.

**Initial trial.** During this period, which lasts approximately six months, monitoring usage (duration and frequency of sessions) and customers' acceptance of the kiosks will be critical.

- **Examine usage.** Retailers must analyze the customer (and employee) usage logs and have employees keep logs of customer feedback and maintenance issues during this time, particularly during a limited deployment.
- **Monitor customer behavior.** Employees should observe whether kiosks are serving their intended purposes and help determine the level of interest from customers. Are the kiosks effectively located? Are they fulfilling customers' needs?

Employees should observe whether kiosks are serving their intended purposes and help determine the level of interest from customers.

**Marketing impact.** In this next phase, which ranges from six to 12 months following deployment, retailers can begin to examine the data in greater detail to identify trends over time and answer questions such as the following:

- **Usage over time.** Is the usage increasing, decreasing, or consistent? Are customers viewing the kiosks as a novelty item or a valuable tool?
- **Impact of product research.** If customers are using the kiosks to find product content, what types of products are being researched most often? Is there an increase in sales that correlates to those specific products?
- **Decreased wait times.** Is there a decline in the amount of time it takes to serve a customer? Is there a reduction in wait times?
- **Changing sales mix.** Is there an increase in the sales of products not found in the store?
- **Customer acquisition.** If a kiosk were placed in a partner's location, how many new customers have been registered, and how many have made a purchase? Is the partner's audience a good match for your business?

**Revenue impact.** This is the critical phase, lasting from 12 to 24 months following deployment and beyond. In this phase, retailers can measure the long-term impact of the kiosk strategy on the overall business by quantifying the product sales and cost savings incurred. During this phase, retailers can deduce the return on investment in kiosks based on a number of factors:

- **Incremental revenue.** What additional revenue is being generated through product sales, sponsorships, and advertising?
- **Cost savings.** Do kiosks improve the efficiency of sales agents (e.g., automating a certain percentage of information inquiries, check-ins, or purchases leaving sales agents available to handle more difficult or escalated requests)? Has consumer acceptance of kiosks reduced the number of sales agents required? Has the kiosk impacted the training of sales agents in that they are relying on the kiosk for content or using the kiosk to familiarize consumers with product and service offerings? Can the retailer reduce total store space through the use of kiosks?

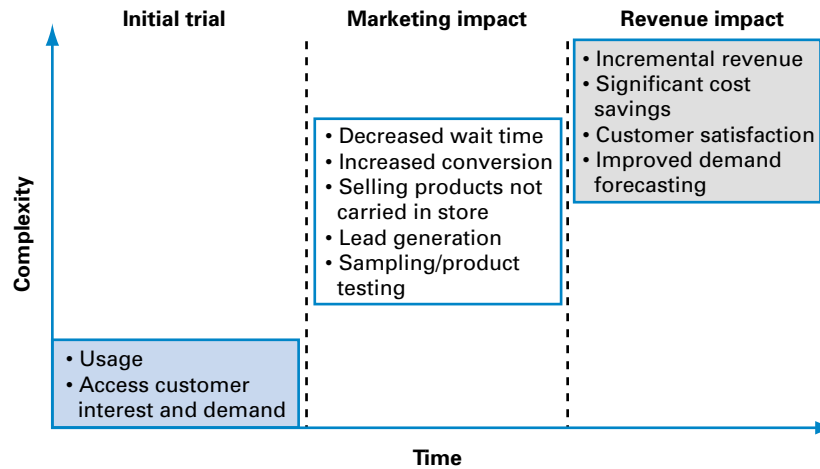
Virgin's kiosk strategy enables significant visible cost savings. The company changed the name of Our Price, its smaller version of the Virgin Megastore, to V Shops and opted to stock only the best-selling products. For inventory not located within the store, customers can order any of an additional 110,000 products through Web-based kiosks. The devices drive 10 percent of total sales, and the company estimates that it saves approximately \$300,000 per year through the reduction of in-store inventory.

- **Improved demand forecasting.** Does the kiosk aid in predicting customer demand for specific products (e.g., models, colors, or sizes)?
- **Assessment of kiosk demand.** Are additional kiosks needed in specific areas? Are certain kiosks underperforming in terms of sales or service? Can they be deployed elsewhere?

Virgin changed the name of Our Price, its smaller version of the Virgin Megastore, to V Shops and opted to stock only the best-selling products.

Through ROI Analysis, Results Become Meaningful over Time

Fig. 14 Measurement and Analysis of a Successful Kiosk Strategy



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### Case Study: REI Uses Kiosk Strategy to Create Virtual Floor Space

**Participants:** REI is a multichannel camping and sporting goods retailer that offers a wide selection of specialized outdoor camping and athletic equipment.

**Goal:** REI wants to supplement its service offerings as well as augment its selection without expanding retail space. To date, the company has operated very large stores in order to stock its broad, deep selection. In 1998, REI introduced transactional kiosks to expand the inventory it offers without adding floor space; it also added product-specific content kiosks to provide very specific customer service.

**Execution:** REI installed transactional and content-focused kiosks powered by its Web site, which offers a superset of products, to drive transactions and provide information on its sales floor. REI installs between three and nine kiosks per store, depending on the store's size, traffic, and layout. Some kiosks are located in specific departments to provide specific functions, such as a car-rack fitting tool that enables consumers to enter their car's model information to determine which size car rack they should buy. The kiosks also offer access to REI's gift registry service via WeddingChannel.com.

REI's kiosk strategy has been very successful to date; as a result, the company is launching a new type of concept store. These stores are much smaller than existing REI retail locations, ranging from 10,000 to 14,000 square feet rather than the current average of 25,000 square feet, and will concentrate on only a few highly relevant departments (e.g., focusing on winter sports in a mountain location) and will depend on kiosks to offer a broad inventory selection.

**Economics:** REI reports that the current aggregated yearly sales via its kiosks roughly equal the yearly sales of an average REI store.

**Bottom Line:** REI has successfully integrated kiosks into its overall retail strategy. With two full years of experience using kiosks, REI has been able to drive enough consumer adoption to extend its business strategy by using kiosks to expand its reach and efficiently penetrate additional markets with smaller stores. In the future, REI will likely be able to carry fewer products in its stores and instead offer more products through its kiosks, enabling the retailer to either better use its floor space to stock inventory that turns over more rapidly or reduce its store size to cut real estate costs.

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## Report Methodology

The core of Jupiter's products is the perspective and opinion of Jupiter's research professionals. Jupiter analysts are immersed in the industries they cover through ongoing contact with corporate and technology leaders, daily study of trends and events in the online world, and their collective professional experience. Individual analyst perspectives are filtered through rigorous collective debate and deliberation, producing research that reflects the combined sensibility of Jupiter's entire research team.

Analyst perspectives are enhanced and refined through Jupiter-designed market research. Jupiter uses many data research tools, including Media Metrix measurement data, AdRelevance online ad banner tracking, consumer surveys, systematic polling of leading industry executives, and a rigorous approach to building market forecasting models. Specialists with Jupiter's Data Research Group assist analysts in the technical development of these tools, such as survey design, sample building, data weighting, and data analysis.

This report benefited from a number of specific market research projects, described below.

### Consumer Survey

In January 2001, Jupiter designed and fielded a survey to online consumers selected randomly from NPD consumer panels. A total of 2,294 individuals responded to the survey. Respondents received an e-mail invitation to participate in the survey, with an attached URL linked to the Web-based survey form. As an incentive, respondents are entered into a drawing for cash prizes of \$100. The sample was weighted by a series of demographic and behavioral characteristics to ensure that it was representative of the online population. Demographic weighting variables included age, gender, household income, household education, household type, region, and market size. Additionally, Jupiter took the unconventional step of weighting the data by online tenure and AOL usage, two key determinants of online behavior. Balancing quotas were determined by an ongoing weekly RDD survey of almost 5,000 US households. The survey data are fully projectable to the US online population within a confidence interval of plus or minus five percent.

In this survey effort, Jupiter worked with its research partner NPD on the technical tasks of survey fielding, sample building, balancing, and data processing. NPD, founded in 1953, is one of the largest market research companies in the US and maintains a general research panel of 400,000 households as well as an online panel of 450,000 Internet users. Panel-based market research enables Jupiter to have a baseline knowledge of each survey respondent, increase survey participation rates, and permit careful rationing of survey fielding to reduce survey burnout.

### Jupiter Kiosk Shopping Model

To quantify the dynamic changes that Jupiter expects will take place in the retail kiosk market, Jupiter built a complex forecast model capturing current online activity in this space and six-year revenue forecasts. This model defines key growth levers, market drivers, and inhibitors, giving clients a clear, analytical way to think about upcoming changes in their sector. Jupiter analysts use a variety of quantitative methods in modeling the future, including close examination of analogous markets, consumer and executive intention surveys, scorecard analysis of market drivers and inhibitors, complex market segmentation analysis, and analysis of historical trends. Additionally, all forecast assumptions are rigorously debated and vetted by a large cross-disciplinary group of Jupiter analysts in a process designed to capture the collective sensibility and experience of Jupiter's entire analyst team.

As part of the forecast modeling, Jupiter developed comprehensive historical and base-year market-size estimates based on a variety of sources, including public financial documents, executive interviews, Jupiter's proprietary primary consumer research, and analysis of the vast Web site tracking databases of Media Metrix and AdRelevance.

All of Jupiter's forecasts are designed by a dedicated team of forecasting analysts within Jupiter's Data Research group, who build the models, conduct extensive industry research, and manage the process of formally building consensus among Jupiter's analysts. Jupiter forecasting analysts have backgrounds in investment banking, management consulting, and market research, where they developed extensive experience with industry and company forecasting.

## Definition

Jupiter's kiosk shopping projections focus on the adoption rates of retail kiosks in conducting two primary activities: direct shopping and off-line influenced spending. Direct shopping pertains to completing an order and payment for a purchase through a kiosk. Off-line influenced spending refers to the use of a kiosk to assist in the process of making a final purchase off-line, such as locating a product in a store or ordering a product for future pick-up and payment off-line.

## Forecast Key Levers

Although Jupiter modeled kiosk shopping and off-line influenced spending separately, the two forecasts share a similar structure. Below are the key layers of the forecast:

- **Population segmentation.** Segmenting the population into four categories functions as an indicator of comfort level with technology and its adoption to make purchases. The four categories include online buyers, online browsers, online nonbuyers, and non-online population. Their online status is a reasonable proxy with which to estimate adoption of kiosks as a medium to purchase and assist in shopping. Online buyers are the most likely and probably the earliest adopters of kiosks, followed by online browsers, online nonbuyers, and the non-online population, in that order. One important difference between using a kiosk and the Internet is access to immediate in-person assistance. Most kiosks, at least initially, will be placed in a brick-and-mortar store where immediate help will be available for answering customer queries. This will drive at least a small percentage of online browsers, online nonbuyers, and members of the non-online population to buy through the kiosk.
- **Kiosk penetration.** The rate at which transactional kiosks are deployed will dictate the total retail dollars that will be exposed to potential transaction through the channel. Initially, most consumers will use kiosks to retrieve product-specific information within a store. While information access will remain kiosks' primary function, they will gain credence as a transactional medium with increasing tenure.
- **Category scorecard.** Though the overall amount of retail sales made through a kiosk will continue to grow, not all categories will fare equally well. To assess the potential of market segments as diverse as groceries, software, and ticketing, Jupiter created scorecards that capture relevant

factors likely to influence the relative success and failure of particular categories. These scorecards identify the most significant drivers of success for online shopping and then rank each product category relative to the others on each of the criteria. Last, Jupiter weights the importance of the various criteria that drive category penetration and synthesizes them to drive the six-year forecast for each product category.

The nine variables used to assess the relative shift to kiosks and its usage for making purchase decisions are as follows:

- **Merchant activity.** Given the heavy investments involved in deployment of kiosks, fulfillment infrastructure, and marketing campaigns, the success of product categories depends on the availability of funding and the commitment to this strategy. Categories with large, well-funded players will do disproportionately well.
- **Ease of evaluation.** Some consumers will resist purchasing products through a kiosk if touching, smelling, or otherwise physically experiencing the products are an important part of their selection process. Categories that require touch (e.g., perishable groceries), smell (e.g., fragrances and candles), trying on (e.g., apparel and shoes) will be at a disadvantage.
- **Current online buying.** Current online shopping behavior is an important factor in identifying which shopping categories will lead in the future. Categories with heavy current online shopping (e.g., music) will carry this lead into the next five years. Consumers who purchase online in a particular category today are already advancing up the learning curve.
- **Number of SKUs and product selection.** Extensive brand selection and the number of products within a category will drive kiosk adoption. A kiosk will be a suitable tool to identify and locate the product matching a customer's specification.
- **Opportunity to preview.** Categories that can be effectively sampled and previewed in the decision-making process will benefit from being available for purchase via kiosks.
- **Out of stock/size/label.** Consumers can assess high-turnover goods that have a greater propensity to be out of stock via a kiosk, which will drive adoption.
- **Shipment.** Categories that require remote fulfillment such as furniture will indirectly drive kiosk adoption.

- **Current kiosk deployment.** First-mover advantage will favor categories with earlier kiosk deployment, as consumers will become accustomed to the channel.
- **Gift registry/gift giving.** Categories that include items frequently given as gifts (e.g., books or music) will benefit from kiosk deployment. Many gifts are likely to be sent to someone other than the purchaser; thus, remote fulfillment serves as a convenience to purchasing behavior.

In forecasting the adoption of kiosks, Jupiter also considered additional factors, including tenure of users with this medium; comparative growth rates in analogous markets, such as ATM penetration; and the growth of the Internet as a shopping medium.

### Critical Factors

Integration of the online channel and the kiosk interface. A similar look and feel and the integration of operational and marketing activities will spur the adoption of kiosks. Customers will have a similar user experience online and at the kiosk, increasing the comfort level among online users.



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