THE MAKEOVER OF VENDING MACHINES IN THE US

- US vending machine sales are forecast to reach $4.7 billion by 2019, from $4.5 billion in 2015.
- Packaged drinks are the biggest vending category in the US, accounting for 65.6% of the total vending market.
- Micro-markets, self-checkout retail food establishments, are the new big thing in vending. These fully automated self-checkout retail locations often offer healthier food and drink options than traditional vending machines do.
- Micro-markets are projected to grow from 5,000 installations in 2014 up to 35,000 installations in 2017.
- Smart technologies will drive the increasing variety and personalization of products offered through vending machines.
- According to Airports Council International-North America, automated retail units in airports produce average gross sales of more than $100,000 per year, with expected growth of 10% per year.
MARKET OVERVIEW

According to Euromonitor International, vending machine sales in the US reached $4.55 billion in 2014 and are projected to grow to $4.70 billion by 2019 at an estimated CAGR of 1%. The US is the world’s third-largest vending market; Japan is the largest, with vending sales of $26 billion, and Spain is the second-largest, with sales of $8 billion.

Figure 1. Vending Market in the US (USD Billion)

Source: Euromonitor International

As evidenced by the slow projected growth rate of the US market, the vending segment has traditionally been a mature playing field, with little innovation in terms of products and technology. With the advent of Internet of Things connectivity, however, we expect to see new technology deployed in the vending space. This, in turn, will likely lead to the emergence of innovative vending concepts.

One way these concepts will manifest themselves is in the introduction of new product categories in the vending space, which will take market share from existing product categories. In 2014, packaged drinks and foods made up the majority of vended items, accounting for a combined market share of 83.6%, according to Euromonitor International. Hot drinks and tobacco followed the biggest categories in terms of sales, with market shares of 3.8% and 1.3%, respectively. Tobacco, however, has seen a significant decline in sales over the last three years, while other vended product categories have experienced modest growth, contributing to a stale outlook for the vending industry. As a result, we see the introduction of new categories—such as beauty products, healthy foods and other nontraditional items—as potentially disrupting the status quo and spurring growth in the vending space.
### Figure 2. Vending by Category in the US: Retail Value Excluding Sales Tax (USD Mil.)

<table>
<thead>
<tr>
<th>Category</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Packaged Drinks</td>
<td>2,647.7</td>
<td>2,784.0</td>
<td>2,869.6</td>
<td>2,960.6</td>
<td>2,964.0</td>
<td>2,982.4</td>
</tr>
<tr>
<td>Packaged Foods</td>
<td>716.8</td>
<td>704.8</td>
<td>738.7</td>
<td>772.9</td>
<td>789.5</td>
<td>821.8</td>
</tr>
<tr>
<td>Personal Hygiene Products</td>
<td>31.2</td>
<td>30.5</td>
<td>30.6</td>
<td>29.1</td>
<td>31.6</td>
<td>31.1</td>
</tr>
<tr>
<td>Tobacco Products</td>
<td>90.9</td>
<td>95.9</td>
<td>97.0</td>
<td>65.9</td>
<td>70.5</td>
<td>60.3</td>
</tr>
<tr>
<td>Hot Drinks</td>
<td>173.0</td>
<td>169.2</td>
<td>166.6</td>
<td>174.8</td>
<td>170.2</td>
<td>176.1</td>
</tr>
<tr>
<td>Traditional Toys and Games</td>
<td>44.8</td>
<td>41.8</td>
<td>39.2</td>
<td>37.9</td>
<td>37.1</td>
<td>37.4</td>
</tr>
<tr>
<td>Other Products Vending</td>
<td>489.0</td>
<td>508.1</td>
<td>527.4</td>
<td>557.1</td>
<td>517.0</td>
<td>436.6</td>
</tr>
<tr>
<td>Vending</td>
<td>4,193.5</td>
<td>4,334.4</td>
<td>4,469.2</td>
<td>4,598.4</td>
<td>4,580.0</td>
<td>4,545.6</td>
</tr>
</tbody>
</table>

*Vending data captures vending systems installed in public and semi-captive environments only. Source: Euromonitor International*

### NEW PRODUCT CATEGORIES

**Personalized Beauty Products**

In 2013, L’Oréal launched an interactive makeup vending machine in the New York subway that showcased some of the possibilities beyond the traditional vending choices of soft drinks and snacks. The new vending machine offered women a different retail experience. It was equipped with a smart mirror that highlighted the dominant color of a customer’s outfit and recommended curated beauty products that would work best for the customer on that particular day. The customer could then order the suggested products on the spot and pay by mobile seamlessly.

*Source: L’Oréal Paris*
Beauty Vending

Even though the beauty vending trend dates back to 1997, the concept really went mainstream in 2009, when Sephora introduced self-service kiosks at airports. Today, the brand’s vending machines peddle more than 50 branded beauty products, ranging from skincare to fragrances. And the concept has quickly been taken up by other beauty brands: Benefit Cosmetics launched its pink kiosks in 25 airports across the US; Chanel rolled out a Le Volume de Chanel Mascara vending machine in the UK; and Essie, a nail polish brand, debuted a machine called Essie Color Boutique. The main appeal of beauty vending is that it provides a cost-efficient way for brands to reach consumers at places where a fully functioning store would not be justified.

Consumer Electronics

As beauty vending machines became more prevalent in locations such as airports, they paved the way for another product category—consumer electronics. In 2013, Best Buy rolled out its Best Buy Express kiosks, targeting travelers, who often use tech gadgets and gizmos as a fun way to kill time while waiting for their next flight. The kiosks offer accessories such as headphones and phone chargers, but also iPods, cameras and even tablets. Credit card and mobile payment options made vending these items possible, since having to pay in cash for such higher-end products would be too much of a hassle for consumers.
Healthy Food
Vending machines have traditionally sold unhealthy snacks and fizzy drinks. But some companies are exploring the possibility of offering fresh food in vending machines in response to the healthier lifestyle trend, which is still increasing in popularity. However, vending healthy and fresh foods is difficult because of the short product expiration period that makes inventory management so complex. With the aid of telemetry technology, which can collect and transmit data remotely, vending machines can now transmit sales and inventory data, and staff can be notified that they need to restock the machines accordingly. This leads to higher efficiency and decreases the risk of wastage. In addition, the integration of digital displays in vending machines means that nutritional information on vended products can be provided to customers in a convenient and easy manner.

Taking this concept one step further is the micro-market, a self-checkout retail food establishment that replaces a bank of traditional vending machines. Micro-markets are fully automated and, just like vending machines, do not require an employee to operate them. The installations utilize UPC bar codes and RFID tags that allow customers to scan products at the self-checkout. Payment is made via cash, credit card, mobile payment or a stored-value card.

Micro-markets generally offer healthier food options, such as deli sandwiches, soups, low-calorie and low-fat snack alternatives, and breakfast sandwiches and cereals. The concept was showcased at the 2014 National Automatic Merchandising Association (NAMA) OneShow in Chicago by Avanti Markets and 365 Retail Markets, which provide solutions for operating micro-market installations. According to NAMA Chairman Pete Tullio, this new concept will grow to 35,000 installations by 2017 from the 5,000 installations counted in 2014.

NEW TRENDS IN VENDING
Mobile Payment
Mobile payment options such as Apple Pay, Android Pay and Samsung Pay are a good fit for vending machines because they bring significant operating-cost savings to operators while also minimizing sales losses due to machine malfunctions. Thanks to their lower operating costs, vending machines have become a more viable point-of-sale channel, which, in turn, has driven higher demand for vending options.

L’Oréal, Coca-Cola, SAP and some other companies have developed a new generation of smart vending machines that accept mobile payments. However, most machines currently on the market accept only traditional cash and credit card payments; they cannot process mobile transactions.

One startup, PayRange, has come up with a solution to fix that problem, and is helping the vending machine base transition into the age of mobile payment. Founder and CEO Paresh Patel points out that over 60% of the service costs involved with operating a vending machine are related to cash acceptance—getting change and filling the machine with coins—and he notes that sales losses due to bill and coin jams and machines being out of change can limit profitability. PayRange uses a Bluetooth device installed in a vending machine to allow customers to transact with the machine via a
mobile app. In this way, the technology takes away the costs associated with cash acceptance issues.

PayRange’s key competitive edge is that it targets existing vending machines. In essence, it offers vending operators a cheaper option for accepting mobile payments than switching to newer, smart vending machines.

**Data Analytics**

SAP’s Connected Retail division is focusing on developing solutions that connect consumers with data intelligence and vending machines in an effort to enhance the customer experience while improving the operational efficiency of the vending process. One of SAP’s projects resulted in a partnership with Vendors Exchange International to develop a connected vending machine. The machine’s interface is controlled via an SAP mobile app, which allows the customer to connect with the vending machine. Once connected, the machine displays a curated menu of items based on the customer’s purchase history. This creates a differentiated product offering and allows the upselling of products via special promotional offers. Customers can also give feedback to improve the curation of products in the future.

Besides the interactive front end, the connected vending machine features a back-end tool that keeps track of inventory and has the ability to initiate refill orders via dynamic routing technology. For vendor operators, SAP offers a data-visualization dashboard that displays vending machine locations and indicators such as sell-through and inventory levels, making it easier for them to manage their vending assets.

**Personalization and Customization**

Modern vending machines facilitate the personalization and customization of products. L’Oréal’s personalized beauty product vending concept is only one example.

Another is Coca-Cola’s customized beverage vending machine. Coca-Cola Freestyle is a vending concept that allows customers to mix over a hundred choices of Coca-Cola’s soda. Customers use the Coca-Cola Freestyle app to connect to the machine and then select two or three soda drinks to mix, thereby personalizing their drinking experience.
**Interactive Marketing and Promotion**

Coca-Cola has also experimented with the vending machine as an interactive marketing and promotion tool. The company has been able to create buzz and promote its brand via several smart, innovative and fun vending machine campaigns:

- **The Coca-Cola Happiness Machine** delivered surprising products, including flowers, pizza and, strangely enough, a surfboard.

- **The Coca-Cola Hug Machine** delivered a free can of Coke to anyone who hugged the machine.

- **In South Korea**, a **Coke dance machine** displayed dancing K-pop stars. People who mimicked the dance act successfully were rewarded with a Coke drink.

![Image 1](image1.png)

![Image 2](image2.png)

**CONCLUSION**

Even though the vending machine industry is projected to grow at only a modest CAGR of 1% over the next two years, we believe that new technologies and concepts will revolutionize this retail sales channel. We are likely to see an increase in customized product offerings and interactive equipment that will make shopping more fun, while simultaneously improving vending economics.

The emergence of the micro-market concept is one of the big developments in the field that we are looking forward to tracking. We are also excited to see the innovative ways that companies will apply technology in order to shake up the industry.