

The Modern Vending Imperative

Driving Smarter Vending Decisions By
Unleashing Your Data



THE BIG DEAL ABOUT DATA

Over the past couple of decades, we've seen the valuation of corporate data rise dramatically in virtually every industry sector. This trend has occurred in parallel with the emergence and evolution of information technology hardware and software that enable organizations to capture, organize, analyze and transform real-time operational data into actionable insights that can produce previously unimaginable increases in the bottom line.

Vending operators are beginning to understand the importance of information. Traditionally, they've gathered information manually, relying on route drivers to record key data points on paper route cards. Many vending operators still rely on historical vending route data to make daily merchandising, scheduling and inventory management decisions. Some may feel that this time-honored method serves them well in terms of helping them manage their company's performance. Most, however, have found or are finding that by implementing modern vending technology solutions and leveraging the real-time source transaction data they deliver, they can significantly improve route efficiency, inventory and machine management and increase profitability.

FROM HABIT AND HISTORY TO REAL-TIME DATA DRIVEN DECISION MAKING

Today's buzzing about the importance and power of data is the product of new vending technologies that can deliver much more detailed and up-to-the-minute data about businesses and empower operators with the ability to analyze ever-larger volumes of this detailed data to produce real-time, panoramic visibility across all areas of the business. With this information and the insights triggered by it, operators can make the right decisions at the right times to drive sales, reduce operating expenses and increase profitability.

The ever increasing buzz about data, big data, data analytics and other variations on this theme may be new, but data itself has always informed the way smart business owners and managers have run their businesses. Certain business fundamentals are eternal. To be successful, business owners and managers need to understand the characteristics, preferences and expectations of their customers and prospects, and the dynamics of the markets in which they operate. With a clear grasp of these fundamentals, they can spot business opportunities, competitive threats, identify areas in which they can innovate to broaden their market appeal and increase operational efficiency...all in order to create loyal and profitable customers.

In the earliest years of the vending industry, these business fundamentals may have been attributed to operators' innate instincts and street smarts but once businesses were up and running and operators began keeping records of transactions and the operational aspects of their businesses, more documented source data began informing their planning and decision-making. The introduction of route cards formalized record-keeping processes, increasing the amount, types, accuracy and freshness of business data. Eventually, in many cases, route cards were replaced or supplemented with handheld devices as more effective and accurate data capture tools. However, these traditional data capture methods provided data on what had been sold...after the fact. The route management was predicated on a set, static system that often used a plan-o-gram for all machines. Truck inventories often dictated product delivery and machines were serviced often whether they needed it or not.

THE DATA DECISION DRIVEN PROCESS MODEL

Modern vending technology enables a continuous, **data-driven decision making process** (illustrated in the diagram below) that transforms real-time source data into actionable insights which produce increased profitability and customer satisfaction.



Why Transaction Level Data is Important

Transaction level data helps operators to answer the questions: “Are my system inputs correct? Do I have the right item, in the right spiral, in the right machine?”

Having real-time access to transactional source data from every machine allows operators to measure, analyze and optimize the performance of their businesses more accurately and effectively. They can see how each machine at each location is performing, what products are selling, what machines need restocking, and what machines require servicing at any given moment.

Real-time access to transactional source data and tools enabling rapid analysis, allow operators to be proactive rather than reactive. They can make decisions, for instance, based on what is selling versus what has been sold. They can see inventory in real-time. They can make merchandising changes in real-time. They can make the leap from decision-making linked largely to calendar dates and historical routines to decisions prompted by real-time business requirements.

Setting A Management Directive and Measurements for Optimization

Vending operators who are heading down a data-driven decision process model need to define clear business objectives and set the parameters for maximum service profitability which typically equals the maximum fills/collects per machine stop + minimal out of stocks (OOS). This will allow them to set up the right measurements such as:

- Quantifying acceptable service levels
- Determining what products are triggering machine service

From there, they can adjust the schedule and merchandising more often to minimize OOS per machine or adjust product placement and spiral usage to minimize OOS events and increase fills per service.

Here is an example scorecard for measuring service profitability:

	DATA SOURCE		
	Driver	Handheld	Wireless
Tracking	Category Level	Item Level	Item Level
Data Quality	Low — Per Service Visit	Medium — Per Service Visit	High — Every Day Automatically
Measurement	Fills per machine and OOS, adjust accordingly and measure	Fills per machine and OOS, adjust accordingly and measure	Transaction sales, OOS by item
Fills per Machine	~ 60	~ 80	~ 110
Service Cost	15% of sales	13% of sales	8% of sales

According to Brad Bachtelle, President, Bachtelle & Associates, “This kind of technology powered situational awareness, made possible by wireless telemetry and machine to machine communication, impacts the way we manage our business by allowing us to see the business in ways we never could before. The efficiency gains and resultant revenue and profitability increases are tremendous.”

DATA UNLEASHED — IN REAL-TIME, IN THE REAL WORLD

Joe Harris is the owner of Midwest Vending, a nearly 60 year-old vending company servicing businesses, schools and other venues in the Minneapolis-St. Paul metro area. With approximately 2,000 machines, the company has evolved over the years from a route driver informed method of decision making to a more automated, technology, source data driven method.

As Harris explains, “We’ve always made an effort to understand what sells and where it sells because the correlation between the labor it takes to fill your machines and your profitability are so tightly linked. Today more than ever, with gas costs, truck costs and everything, the more a route can do on the street, the better off you are.”

In the early days of the company, route drivers had full control over the management of machines. Drivers ordered the products for the machines, stocked the machines and determined maintenance scheduling. As time progressed, management realized it needed to get smarter about how it managed its operations. It determined that the key to making optimal business decisions was having solid, accurate data.

Like every successful company, Midwest’s goals were to increase operational efficiency, maximize product sales and deliver better, more responsive customer service.

Those goals led Midwest to begin using planograms to plan and track machine performance by categories. That process evolved to tracking at a more granular level – by items. To enable drivers to gather this information efficiently, it equipped them with “brick styled” handheld devices, which did, in fact, provide management with more data to use in decision-making. After more time had passed, the company decided that to be even more effective and efficient, it needed more, and more up-to-the-minute data to drive its decisions. That led it to implement machine-to-machine connectivity.

“Having the machines connected in real-time gave us the ability to look at what was selling, where it was selling and to make the right decisions based on that information,” says Harris. The result was a better experience for our customers and a more profitable result for Midwest.”

“Thanks to this technology,” says Harris, “when a manager schedules a route today he’s actually looking at what’s sold in our machines in real-time, and knowing what’s selling and what isn’t, he can make better decisions. So, in a very real sense, decisions that used to be made by drivers based on habit or less than perfect data, are now made by each machine based on actual, detailed performance data. And the servicing of machines is no longer driven by the calendar, but by need as communicated to us by our machines.”

The moral of Midwest’s story is clear: driver collected and communicated historical data is useful but not as useful or reliable as technology delivered, real-time operational data.

Harris adds: “Using this technology [from Cantaloupe Systems], we’re significantly increasing route efficiency. We’ve seen revenue per machine per route increase from about \$100 to about \$250 while at the same time seeing service costs decrease from 15% to 8% of operating expenses.”

Based on this success, Midwest is planning to move its vending management system to the cloud and equip its route drivers with smaller, more powerful handheld devices like smartphones and tablets in order to gather even more accurate data more rapidly to drive even more effective business decisions with the aid of new vending analytical technology.

THE MORE SPECIFIC AND TIMELY THE DATA, THE BETTER

The decisions vending operators make numerous times every day are what determine how successful they will be. Making the most effective decisions depends on having the most detailed, accurate, up-to-date source data. The more specific and timely the source data, the better information operators have at their command to make those decisions – large and small.

Decisions about how to:

- Increase sales per machine
- Maximize margins
- Minimize expenses
- Retain and grow current customers
- Attract new customers
- Manage inventory efficiently
- Determine the most profitable merchandising mixes

Only by deploying modern vending technology, particularly machine-to-machine wireless connectivity can operators see the live transaction level data needed to perform real-time inventory analysis, real-time service delivery analysis, and to make real-time merchandising changes. As discussed earlier, data-driven decision-making is a continuous process.

As Harris observes, “Having connected machines means we can bring transaction level data into our systems. We know exactly what is sold and when that sale occurred. Once connected, and with this real-time, granular data, we now have the ability to make better decisions. This is in contrast to relying upon a route driver doing his job and entering data manually and hoping it’s correct.”

It means no more guessing about whether Cheerios or Cheetos are selling better at any given point in time. No more uncertainty about item levels in machines. No more costly, unnecessary trips to check on machines that are in good shape, and no more delays in getting to machines that are out of stock or malfunctioning.

HERE’S ONE DECISION THAT’S A NO-BRAINER

Hundreds of vending operators worldwide rely on Cantaloupe Systems’ innovative technology solutions to help them unleash the power of their transactional source data to make the best possible decisions for their businesses.

To learn how Cantaloupe Systems can help you maximize the performance and profitability of your vending business, contact Cantaloupe Systems today at (415) 525-8100 or for more information visit us at: www.cantaloupesys.com.

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