

# Diamonds in the Data Mine

by Gary Loveman



Harvard Business Review

Reprint R0305H

# Harvard Business Review



May 2003

HBR CASE STUDY

**Leadership Development:  
Perk or Priority?**

Idalene F. Kesner

R0305A

HBR AT LARGE

**IT Doesn't Matter**

Nicholas G. Carr

R0305B

**Is Silence Killing Your Company?**

Leslie Perlow and Stephanie Williams

R0305C

**Global Gamesmanship**

Ian C. MacMillan, Alexander B. van Putten,  
and Rita Gunther McGrath

R0305D

**The High Cost of Accurate Knowledge**

Kathleen M. Sutcliffe and Klaus Weber

R0305E

**Hedging Customers**

Ravi Dhar and Rashi Glazer

R0305F

**The Nonprofit Sector's  
\$100 Billion Opportunity**

Bill Bradley, Paul Jansen, and Les Silverman

R0305G

BEST PRACTICE

**Diamonds in the Data Mine**

Gary Loveman

R0305H

FRONTIERS

**Don't Trust Your Gut**

Eric Bonabeau

R0305J

# Diamonds in the Data Mine

by Gary Loveman

*Harrah's Entertainment has outplayed its competition and won impressive gains, despite being dealt a weak hand by the economy.*

*The secret? Mining the company's rich database to develop compelling customer incentives.*

IT'S A FRIDAY NIGHT on the Las Vegas Strip, and all of the neighbors are making spectacles of themselves. The \$750 million Mirage boasts a Vesuvian volcano that erupts loudly every 15 minutes. Next door, at Treasure Island, a faux British frigate battles a pirate ship at regular intervals. Further down the Strip, the Bellagio sports a lake festooned with sparkling, dancing fountains that beckon to passing tourists.

Meanwhile, the customer pulling into Harrah's Las Vegas is dazzled more by the service than the building. A smiling valet greets her by name. Instead of having to wade through a crowded lobby to reach the casino, she steps quickly into the gaming room and sits down at a slot machine. The card reader on the machine pages her host, who approaches every so often to ensure that

she's happy with the service she's receiving. Although the customer doesn't fit the stereotypical profile of a Las Vegas high roller, Harrah's makes sure she feels special. Because the casino delivers the recognition and service she has come to expect, she'll return to Harrah's again and again.

Harrah's Entertainment has the most devoted clientele in the casino industry—a business notorious for fickle customers. That loyalty to Harrah's, which now operates 26 casinos in 13 states, has enabled the gaming company to record 16 straight quarters of same-store revenue growth. In 2002, Harrah's posted more than \$4 billion in revenue and \$235 million in net income.

We've increased customer loyalty, even in the current challenging economy, in two ways. First, we use database

marketing and decision-science-based analytical tools to widen the gap between us and casino operators who base their customer incentives more on intuition than evidence. Second, we deliver the great service that consumers demand. In short, we've come out on top in the casino wars by mining our customer data deeply, running marketing experiments, and using the results to develop and implement finely tuned marketing and service-delivery strategies that keep our customers coming back.

### A Dickey Business

By the time I had left Harvard Business School to join the corporation as chief operating officer in 1998, Harrah's had become the first nationwide casino business, thanks to a geographic diversification plan promulgated by Phil Satre, the company's chairman and then-chief executive officer. Satre led the wave of gaming growth in the 1990s, expanding Harrah's from four casinos in two states to 26 casinos across 13 states currently.

Satre's vision differed markedly from the strategy pursued by other big casino operators, whose "If you build it, they will come" philosophy focused on attracting customers to a fantasyland Las Vegas. Companies such as Mandalay Resort Group and MGM-Mirage invested heavily in constructing costly must-see casinos offering a wide range of amenities—fabulous spas, high-end shopping malls, dazzling shows—designed to appeal to a broader audience than simply gamblers. Their hope was that such facilities would attract an ever-growing number of new customers. This strategy ultimately transformed both the Las Vegas skyline and tourist spending patterns: The Las Vegas Convention and Visitors Authority reported that, in 2001, revenues from dining, entertainment, shopping, and other activities outpaced the city's casino revenues by a three-to-one margin.

Satre, by contrast, focused on expanding the corporation's gaming busi-

ness outside Nevada and Atlantic City, seeing geographic diversification as an opportunity to introduce the Harrah's brand to new customers and to insulate the company from regional economic vagaries. Once Harrah's posted high returns in these emerging markets, its competitors also began to expand into them. But Satre believed that competing largely on the basis of billion-dollar facilities in the face of new competition was not the most prudent use of capital because the returns on such buildings often weaken when the novelty wanes.

Fortunately, Satre had two important arrows in his quiver. First, he knew that, unlike its competitors, Harrah's didn't depend heavily on its stores, restaurants, bars, or shows; it drew the lion's share of its revenues—87.2% in 2001—from its casinos. He also suspected that cultivating lasting relationships with the company's core customers—slot players—would lead to greater and more sustainable profit growth. So he opted to invest in development of the intellectual and technological capabilities needed to assemble and analyze data about those customers. The goal was to provide good service to them and thus encourage their loyalty to the company's brand. When Satre hired me as COO, he said he wanted to change Harrah's from an operations-driven company that viewed each casino as a stand-alone business into a marketing-driven company that built customer loyalty to all Harrah's properties.

One tactic the company had already decided to use to enhance customer loyalty was called Total Gold, a player-card program that was modeled after the airline industry's frequent-flier programs. Launched in 1997, Total Gold was designed to provide regular customers with incentives to visit Harrah's properties throughout the country. Customers inserted their Total Gold cards into slot machines and earned credits as they played. They were rewarded with the standard fare that all casinos offer—

free hotel rooms, dinners, show tickets, gift certificates. But there were three problems with the program. First, nothing differentiated this program from our competitors' efforts. Our customers simply took their free rooms and dinners and drifted across the street to do their gambling. Second, our customers

Instead of focusing on how much people spent in our casinos during a single visit, it became clear that we needed to focus on their potential worth over time.

earned different rewards at different properties; there was no uniformity in the program. Third, and most important, our customers were not given any incentives to consolidate their gaming with Harrah's.

While Total Gold wasn't much good for keeping customers loyal to Harrah's, it was quietly digging our future diamond mine. By tracking millions of individual transactions, the information-technology systems that underlie the program had assembled a vast amount of data on customer preferences. At the core of the Total Gold rewards program (and its successor, Total Rewards, which I'll describe below) was a 300-gigabyte transactional database that recorded customer activity at various points of sale—slot machines, restaurants, and other retail areas in our properties. Database managers fed that information into our enterprise data warehouse, which contained not only millions of transactional data points about customers (such as names, addresses, ages, genders) but also details about their gambling spending and preferences. The database was a very rich repository of customer information.

### Slicing the Dicing

When we started digging into the database, one statistic stood out: Our Total Gold cardholders told us in surveys and

*Former Harvard Business School professor Gary Loveman is the CEO of Harrah's Entertainment. He is the author or coauthor of five HBR articles, including "Putting the Service-Profit Chain to Work" (March–April 1994).*

focus groups that they were spending only 36% of their annual gaming budgets at Harrah's. This presented an opportunity. There was a promise of tremendous upside if we could induce customers to spend more of their gaming money at Harrah's *and* if we could communicate effectively with them. I suggested to Satre that we might be able to divert more of our customers' annual gaming budgets to Harrah's if we borrowed a page from the playbooks of other businesses whose case studies I'd long taught. Basically, we needed to do what the Starbucks and Nordstroms of the world had done—change the way consumers made decisions about our merchandise.

To do that, we clearly needed to slice and dice the data finely enough that we could develop effective marketing programs. Common practice calls for defining marketing strategies apart from database strategies—that is, the company comes up with a grand marketing scheme and then tries to adjust the database to its strategies. Unlike many companies, we decided to let the data suggest the specific marketing ideas to us.

The information we found in our database indicated that a loyalty strategy based on same-store sales growth would work. Same-store sales is a classic measurement of a simple retail-loyalty strategy: The goal is to get a customer to visit your store regularly, just as she might routinely visit her hairdresser and mechanic. The hairdresser and the mechanic envelop the client in reasons to be loyal, primarily by developing a friendly relationship. We decided to develop just this kind of close relationship with the people who visit Harrah's casinos.

Before we could persuade customers to come back time after time, however, we needed to take a hard look at them and understand how much value each of them brought to us. We discovered that 26% of the gamblers who visited Harrah's generated 82% of our revenues. We were surprised to find out who our best customers really were. They emphatically were *not* the gold cuff-linked,

limousine-riding high rollers we and our competitors had fawned over for many years. Instead, they turned out to be former teachers, doctors, bankers, and machinists—middle-aged and senior adults with discretionary time and income who enjoyed playing slot machines.

We also learned that these customers typically did not stay in a hotel but visited a casino on the way home from work or on a weekend night out. At the same time, we found that our target customers often responded better to an offer of \$60 of casino chips than to a free room, two steak meals, and \$30 worth of chips because they enjoyed the anticipation and excitement of gambling itself. And we were able to develop quantitative models that allowed us to predict, based on an individual's play, his or her "customer worth"—the theoretical amount we could expect the customer to spend not just during one evening but over the long term.

Suddenly, we saw how we could differentiate our brand. Understanding the

**All employees are told daily:  
If your service can persuade  
one customer to make one  
more visit a year with us,  
you've had a good shift.  
If you can persuade three,  
you've had a great shift.**

lifetime value of our customers would be critical to our marketing strategy. Instead of focusing on how much people spent in our casinos during a single visit, it became clear that we needed to focus on their potential worth over time. For instance, we could see that customers who said they were very happy with the Harrah's experience increased their spending on gambling at Harrah's by 24% per year; customers who said they were disappointed with Harrah's decreased their spending by 10% per year.

The best way to engage in this kind of data-driven marketing is to gather more

and more specific information about customer preferences, run experiments and analyses on the new data, and determine ways of appealing to players' interests. We realized that the information in our database, coupled with decision-science tools that enabled us to predict individual customers' theoretical value to us, would allow us to create marketing interventions that profitably addressed players' unique preferences. The more we appealed to these preferences, the more money the customers would spend with us.

So we decided to act on a radical idea: We would reward customers for spending in ways that added to their value. Most consumer businesses insist that they can't treat one customer differently than they treat another, even though some customers are obviously worth much more than others. To us, that approach was fundamentally wrong, but it didn't mean that we had to focus on the relatively small number of high rollers. Rather, we made a point of treating our millions of regular customers differently depending on their value to us.

It turned out that our customers—I would venture to say all customers—actually enjoy aspiring to higher levels of achievement and reward. It's simply human nature. Understanding this, we split our customers into three tiers: Gold, Platinum, and Diamond cardholders, based on their annual theoretical value. Platinum and Diamond cardholders receive greater levels of service, which adds an aspirational element to the program. For example, our database told us that our best customers wanted service quickly—they didn't want to wait in line to park their cars, or eat in restaurants, or check in at the front desk. So we decided to make a point of routing our customers into three different lines. People who weren't card-carrying Harrah's members and Gold customers stood in lines at the reception desk or the restaurant. Platinum customers would stand in still shorter lines, and Diamond cardholders would rarely ever have to stand in line. This created a visible differentiation in customer service.

It was essential for our customers to

see the perks that others were getting. Once we divided the lines this way, we watched as our customers did what they could to earn the higher-tiered cards. Every experience in our casino was redesigned to drive customers to want to earn a higher-level card. As it turns out, marketing that appeals to customer aspiration works wonderfully.

We also set up a series of triggers in the database and analyzed the customers' responses to those triggers. If, for example, we discovered that a customer who spends \$1,000 per month with us hadn't visited us in three months, a letter or telephone call would invite him back. If we learned that he lost money during his last visit, we invited him back for a special event. Our telemarketers were trained to listen for responses to specific

**Meeting budget at the expense of service is a very bad idea. If you're not making your numbers, you don't cut back on staff.**

offers—a certain percentage of our customers responded positively to offers of a steak dinner; others would respond to offers of two free nights in the hotel.

Once entered into our database, these responses provided fodder for more slicing, dicing, and experimentation. It's important to note that our database strategy hinged on our ability to combine data from all of our properties, so customers could use their reward cards in multiple locations. Combining transactional data from all our sites was so important that we developed and ultimately patented the technology to do it.

We also decided to use our transactional data to “sell” our slot machines. In the past, we had no way of knowing why customers chose to play at certain machines. Was it because of the way the machines looked? Or because other machines were occupied? Or was it because we had signs on top of them proclaiming the odds? Our transactional database told us exactly what the patterns of

play were in our casinos. We discovered that at any given time, it was possible to know which specific customers were playing at particular slots in Harrah's Las Vegas and what it was about that specific machine that appealed to them. This knowledge allowed us to configure the casino floor with a mix of slot machines that benefited both our customers and our company.

### **Hitting the Customer Service Jackpot**

Deep data mining and decision-science marketing would be worth little in driving same-store sales growth were it not for another simultaneously applied and extremely critical ingredient—an absolute focus on customer satisfaction. When I came to the casino business, there was an insufficient focus on customer service. We decided that great service would allow us to build—just as Home Depot, Four Seasons, and other great brands do in their fields—the capacity to brand ourselves as the only nationwide consumer gaming business.

Customer service is something most organizations say they focus on. But, in fact, they often fail to institute systems to use customer service to reinforce loyalty with carrots and sticks. Our data told us that our customers want friendly and helpful attention in addition to fast service. We decided to link employee rewards to customer satisfaction. Accordingly, we chose to measure all employee performance on the matrices of speed and friendliness. The better the experience the guest had, the more money employees stood to make. To this end, all Harrah's employees take part in a certification program that trains them to deliver excellent service. From housekeepers to slot attendants, from valets to stewards, from receptionists to chefs, all employees are told daily as they arrive at work: If your service can persuade one customer to make one more visit a year with us, you've had a good shift. If you can persuade three, you've had a great shift.

We implemented a bonus plan to reward hourly workers with extra cash for achieving improved customer satisfac-

tion scores, which we culled from very detailed customer surveys. If a property's overall rating rose 3% or more, each employee could earn \$75 to \$200. What has made the bonus program work is that the reward depends on everyone's performance. If the valet's scores were low but the steak house receptionist's were high, the receptionist would check in on the valet. Likewise, if one property received low scores and another high ones, the general manager of the lower-scoring property might visit his colleague to find out what he could do to improve his property's scores.

It's important to note that we chose to measure customer satisfaction scores independent of a property's financial performance. In 2002, one property had record-breaking financial results, but employees did not receive bonuses because their customer service scores were mediocre. Our employees are obsessed with their property's customer satisfaction scores for a good reason: In 2002, we paid \$14.2 million in bonuses to non-management employees based on their properties' customer satisfaction scores. Since the program's inception, Harrah's has paid out more than \$43 million in bonuses.

This score-driven customer satisfaction measure has allowed properties—even those in troubled markets—to continue to grow. Take, for example, our casino in Laughlin, Nevada. Despite strong competition and a mere 1% increase in the local market's gaming revenues in 2002, Harrah's Laughlin recorded a 14% gain in revenues. Why? Because its customers were loyal, thanks to great service. In fact, the employees at Harrah's Laughlin earned the highest customer service scores in the company.

Our experience with customer service has shown us that meeting budget at the expense of service is a very bad idea. If you're not making your numbers, you don't cut back on staff. In fact, just the reverse: The better the experience a guest has and the more attentive you are to him, the more money you'll make. For Harrah's, good customer service is not a matter of an isolated incident or two but of daily routine. When he goes

off duty, the Laughlin general manager tells employees to call him at home—anytime, day or night—whenever they see five people waiting in any line. To us, this is living proof that our same-store sales growth in tough markets has been driven by sustained attention to great customer service.


### **The Winning Hand**

Everything we do to market Harrah's is framed in terms of players' decisions to visit, or not visit, one of our casinos. One measure of the effectiveness of our strat-

egy is that many of our competitors have adopted similar programs after viewing our company's performance over the past few years. But our competitors continue to focus largely on facilities, while we keep combining improved facilities with breakthroughs in marketing and customer service. We maintain our competitive advantage by using our human capital and technology systems to get to know our customers better.

Harrah's will keep adding excitement and benefits to the Total Rewards program, widening its scope across gaming-

related activities. And we'll keep enhancing the benefits that players get from consolidating their gaming within our brands.

Let the neighbors lure tourists with knights on horseback, fiery volcanoes, pirate ships, and mini-Manhattans. We'll just keep refining what we're already pretty good at: drilling into our data and making sure our regular customers are more than satisfied. 

---

Reprint R0305H; HBR OnPoint 3647

To place an order, call 1-800-988-0886.

---