

Harrah's CRM success is no technicality

The success of Harrah's Total Rewards program lies with the effective CRM and data warehouse capabilities the company has put in place.



By creating a state-of-the-art data warehouse and utilizing advanced business intelligence technologies, the company has improved slot performance and claimed king of the player tracking and retention hill

BY ANDY HOLTMANN

When it comes to player tracking, Harrah's Entertainment is widely regarded as a leader in the gaming industry. With the development of the company's Total Rewards program in the late-1990s, Harrah's was able to offer its customers enough incentives to retain them time and time again.

Behind Total Rewards, Harrah's built a sizeable customer database, supported by a powerful data warehouse. That system allowed Harrah's management to better know the demographics of their customer and what they wanted from their gaming and entertainment experiences. It is a system that has worked—so well, in fact, that other gaming companies are now following Harrah's lead, and struggling to catch up.

But while competitors are busy developing their systems, Harrah's has realized new advantages to its own. By combining efforts of its Teradata-powered data warehouse, business intelligence and analysis applications provided by Compudigm and its own proprietary systems and software, Harrah's has been able to effectively analyze every little detail about its slot floor—from finding out which games suit which tiers of players to where on the floor certain slot products should be placed.

"We found out over the course of developing and refining Total Rewards that once you linked all those systems together on the back end with a common database, you can develop decision science capabilities, or business intelligence, which took the system from a very literal standpoint of 'here's what you did, here's what you get,' to more predictive modeling," says Tim Stanley, Harrah's chief information officer.

Now, Total Rewards and the Harrah's customer relationship management (CRM) components that have already mastered the art of retaining customers, can effectively predict what those customers will do, where they'll play, how long and why.

"There have been a number of occasions on their earnings or quarterly conference calls where (Harrah's has) detailed to investors how they've been able to lift their win per slot and yield per property, simply by managing their slots better through the use of these systems," says Patrick Hannebery, marketing analyst for Compudigm. "And with 42,000 slots across 26 properties, that makes a big difference."

Forward looking

Stanley says the idea of having a powerful database with the ability to do analytical queries and detailed customer profiles was something Harrah's management had hoped to build

from the start.

"We started out a number of years ago (pre-1995) doing, what I believe, most casinos are doing today," he says. "The simplest approach you take is to issue a card with the premise that you gain some basic information. Predominately, you look for a mailing address. Historically, the bread and butter has been to mail you stuff, and hopefully, if you were on the property, be able to give you a slightly different customer experience."

By adding what Stanley calls "judicious reinvestments" into the card program, i.e. free rooms, comped meals, etc., Harrah's was able to capture more of its targeted customers and keep them coming back. When the company advanced that idea by creating Total Rewards in 1998, Stanley says Harrah's management had realized that they could keep the customer playing at Harrah's properties wherever they went by offering them the chance to earn more rewards and comps, and moving into a different tier or category of player, which awarded even bigger benefits. It was the technological equivalent to the one-on-one customer service so prevalent in casinos in the 1960s and 1970s, executed through a player card.

It's a strategy that Stanley says other companies could have beaten Harrah's at had they tried.

"Frankly, I would tell you that I think our competitors have poo-pooed this idea for a number of years until the financial analysts on Wall Street asked them why Harrah's continues to be successful," Stanley says. "I think it would be easier to execute for those companies than us. The reason is because other than for a brand name, our properties, up until a couple of years ago, were very dissimilar, but they were aligned under this one brand."

But once Harrah's had its basic database in place, the company was off and rolling. They began adding to the system by implementing programs and systems that created detailed customer profiles, which were used to narrow marketing campaigns to niches that the company knew would respond.

Gamblers and guests of Harrah's told the company what they wanted, either through direct information, comments to management or analysis of their play or spending habits. The seemingly direct correspondence between the company and its patrons built long term relationships.

"Harrah's systems are unique and they have a way with making a win/win situation for both themselves and their customers," says Teradata's Eastern Division Vice President Miles Stevenson. "When you look at the pure utilization of information and the one-to-one marketing of its customers, Harrah's ranks up there with the very best."

To its players and guests, Harrah's was like family. To investors and shareholders, Harrah's was a winner.

A systematic web

While Stanley won't reveal every detail of the inner working of Harrah's CRM and data warehouse systems, he does note it is a complex system that began with the development of Total Rewards.

"To make Total Rewards work, it is really a value chain of stuff that starts right down at the slot data systems and works its way up," he says. "Where the real magic for us occurs is in this back-end data processing environment."

Of those there are a few key systems:

Collectively, Stanley says the system is called WINet



Harrah's slot floors are generating more revenue thanks to "heat maps" that tell the casino manager where the best games should be placed.

(Winner's Information Network). Within that is a system of systems. One is called PDB, or patron database. That system, with a lot of Harrah's proprietary custom code written into it, sits on an Informix database on an IBM S-80 machine. On top of that, Stanley says, is a lot of customized C-code and other processes and middleware that allows all of the processes related to Total Rewards to work transactionally on the gaming floor.

Those systems allow special offers from the Internet, e-mails or written into the players' cards to work as they should, verifying the offer and its value to the customer.

"A key part to the secret of our success is that we don't just analyze all this stuff and create a piece of e-mail. It all links back, so it's a closed-looped process," Stanley says. "All of those things that you as the customer do get recorded. That helps build the analytics to say what worked or didn't work with this customer."

That's where the business intelligence and decision science systems come into play—on the Teradata platform.

"Teradata is basically the foundation—the hardware and database and several of the utilities they use to actually manage their Total Rewards program," Stevenson says.

Teradata provides a UNIX-based system, but the Harrah's version is a quasi-proprietary form of UNIX called MP-RAS. On top of that is Teradata's database architecture.

Stevenson says the database created for Harrah's was one that was designed to do analytics.

"When you think of CRM and the types of work you're doing on the database, you take all the information you get from different properties and consolidate them into one so you have a single view of the customer."

Stanley calls the Teradata platform, "the best thing since sliced bread if you're doing heavy analytical work."

On top of the Teradata platform is a combination of

Cognos and SAS Protocol. Part of the Cognos tools that sit atop WINet is a program called Marketing Workbench that Stanley says allows the analysis of player groups.

"Marketing Workbench with Cognos allows you to do all the analysis and evaluate these customer segment groups and what they did—did they redeem that offer, did they come and play, did they do better or worse on their last trip?" Stanley notes.

Each time a Harrah's marketer wants to run a campaign, the system pre-bakes a recipe of what that marketer should do to tantalize the target group.

A new wave

All of the above systems formed the basis of the Total Rewards program, Stanley says. What is being added and refined now is a new capability from Compudigm that creates detailed player and group player profiles, detailing not only what they did within a Harrah's property, but what they might do.

Stanley says this sort of predictive modeling is the next wave of the CRM and player analysis capabilities.

The Compudigm system can provide visual presentations of real data, putting it into a form that Stanley says works far better for human

interpretation. One of Compudigm's technologies, which Stanley detailed at this year's Gaming Technology Summit, is a map of a slot floor and where its patrons went over time.

Better known as the "heat map" (though in reality it has nothing to do with body heat), the program uses slot play statistics on machines to show where people played—which slots, which slot banks, etc.—and how much was spent.

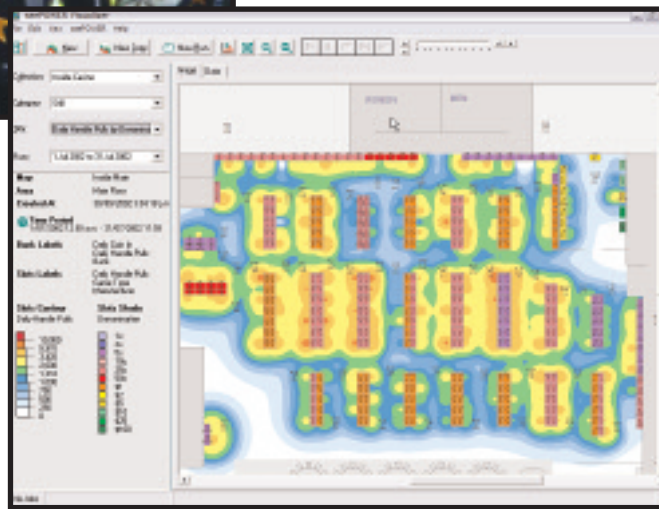
The map is then colored to show high volumes of play. Slots with little attention from customers would receive one color, while others with high volumes would receive another, i.e. the color red, indicating "hot" areas.

"It's almost like a topographic map," Stanley says. "What's neat about the system is that you can look at a group of slots collectively, or drill it down to the play activity on one particular slot—who played it, what was their age or sex, what location of the country did they come from, etc. Each Harrah's slot is now linked into this system."

By doing this, Harrah's can get a better feel for where to place their more popular and unpopular slot products, whether popular slot banks are too close together and if types of games should be grouped together based on the demographics of customer play.

The program, called seePOWER, also has the capability to perform "phenomenally complex queries," Compudigm's Hannebery says.

For example, a visualization can be created, either through still images or animation, showing which class of players



Teradata grows with Harrah's

The data warehouse that today is an industry model began with a consulting job several years ago

Teradata has been involved with Harrah's Entertainment's back-of-the-house player tracking and database systems almost from the start.

"(Harrah's) started out with what they called their patron's database years ago, running on another database platform, and they were having performance issues," says Miles Stevenson, Teradata's eastern division vice president. "Myself and a couple of other people started working with them. At the time, I was an industry consultant. I had background in the gaming/hospitality business. We went in and did a quick study of their systems, analyzed it, came back with some recommendations and put together a business case for them."

That was 1998. Stevenson was able to transfer the original Harrah's database over to the Teradata platform. At the same time, Stevenson says Harrah's was developing

most of its marketing strategies that would later emerge as the Total Rewards program.

The Teradata data warehouse became ground zero for Harrah's marketing efforts, providing a user-friendly, easily accessible collection of names, addresses, phone numbers and other basic information of Harrah's patrons.

That database marked Teradata's first dip into the gaming industry pool. Today, the company, a division of the Dayton, Ohio-based NCR Corp., has become the key foundation of Harrah's CRM and data warehouse capabilities.

"Their system evolved over time," Stevenson says. "It was an evolution, not a revolution. I remember in the years before they took on Teradata, they were developing the interfaces to be able to have the kiosks at the property level be able to communicate back up and update their point systems. The infrastructure that had to be

built to hold the Total Rewards program was something that took a long time and cost millions of dollars."

But by sticking with the Harrah's model and working through whatever changes and wish lists the gaming company's executives could dream up, Teradata developed a name for itself.

Now, the system is touted as the best in the gaming industry and Teradata has reaped the benefits, developing strategic partnerships with Harrah's, while also working with other gaming companies such as Kerzner International and Argosy Gaming.

"We're talking to others in the gaming industry about our systems as well, but Harrah's was the first," Stevenson says. "We've been able to grow our business, thanks to that relationship that started years ago with an idea."

—Andy Holtmann

played which games, and whether their attention (and subsequent value in terms of revenue) should be turned to other games, like those with higher denominations, for example. Marketing personnel can also use this information to develop even more complex player profiles, almost to the point of predicting exactly which machines the customer will play the minute they walk in the door.

"A lot of slot managers think of themselves as experts. They've been in the business 20-plus years and they view their machines as running perfectly and they say, 'don't tell me how to run my slot floor,'" Hannebery says. "But the smart operators have realized the benefits of this technology and embraced it. This system can add an extra \$2 or \$3 of revenue per machine per day, and that adds up."

Cost vs. benefit

The benefits of Harrah's CRM and data warehouse systems are obvious, and have shown in the company's ability to grow. Harrah's executives have repeatedly credited their Total Rewards program—and its back of the house components—with separating the company from its competitors and helping it achieve same store sales growth.

But the cost of creating and main-

taining such a system is not light on the pocketbook.

Hannebery estimates that Harrah's has spent in excess of \$120 million in infrastructure since Total Rewards was created, though he adds that many of the tools used by Harrah's are available at lower off-the-shelf prices today.

Stanley says a casino could create an effective replica of the Harrah's model at a startup cost between \$3 million and \$10 million.

"You could implement some of the basics through companies like Acres or Bally," Stanley says. "With an average of five years for the systems to pay themselves off in productivity, you're looking at a cost of \$2 million per year, with about a \$1 million cost to run it. It's not cheap, but if you can get the right customers through your door, the ones you want, then it's invaluable."

He adds that the true secret to success is getting your company's management and employees to not only accept, but use the systems. That requires training and a dedication to a strategy that cannot waver.

"When people don't do that, or reject it, we have what we call a use gap as opposed to a functionality gap. When you have a use gap, it's probably a bigger challenge than overwhelming them with data. Sometimes, we jokingly say

we're providing F-117 Stealth Fighters out to biplane pilots in the field. It's not to be disrespectful, but we have to not only think about the capabilities and these cool technologies we're putting out there, but the ability to use them in the field. Not every marketer in Tunica or Metropolis, Ill. is a rocket scientist, so you have to make them very effective, very simple and very usable to get the results you want."

Contrary to what Stanley says is popular opinion, smaller casinos can compete effectively with large gaming corporations, if they have people with the right mindset in place.

"I would argue that if you put me and a couple of our key marketing folks at a little property, I'd bet we could beat the pants off of anyone around, simply using the techniques as opposed to having the technology."

Compudigm's Hannebery says that level of commitment and an ability to make slow, calculated decisions regarding what you want out of your system are the best bits of advice he can give to others looking to get into the game.

"Gradual rollout is important. These things don't get built overnight," he says. "You need a data warehouse, you need a commitment to be collecting and leveraging good data, you need to have to have the right people in place to

Compudigm's seePOWER has staying power

Building a strategic partnership with Harrah's, Compudigm is poised to see its business intelligence solutions grow

Compudigm International, which has delivered corporate intelligence solutions for years out of its offices in Las Vegas, London and Wellington, New Zealand, made one of its first big splashes in the gaming industry at the Crown Casino in the Australian city of Melbourne.

Crown Casino has been one of the more profitable casinos in the world, earning an average of AUD\$1 billion a year in revenues. But in September of 2002, the government of the Australian state of Victoria imposed a smoking ban that included casinos. Almost immediately, the Crown and its competitors lost 20 percent of their revenue and the casinos and companies that own them have since been revalued.

Crown turned to Compudigm's seePOWER to better understand the demographic makeup of their new, smoke-free customers.

"What they did was use C-Power to

redesign their floors and a VIP gaming area based on specific preferences of their carded players," says Patrick Hannebery, marketing analyst for Compudigm. "The results they've had have been quite phenomenal. They saw the yield-per-machine go up about 30 percent and they doubled the capacity of that room. They've managed to hold flat to slightly negative growth with the ban, while their competitors have had between 15 percent and 20 percent revenue cuts."

That kind of success is exactly what Harrah's was looking for out of its CRM and player database systems. The Las Vegas gaming company partnered with Compudigm around the same time it was helping Crown cope with the ban.

Now, in both companies, slot win has increased, revenues are up and the company knows more about, and what to expect from its players, thanks to Compudigm's data visualization software.

"When we first installed our system at the Crown Casino, we took their slot win per day from AUD\$252, to AUD\$277. That was worth about AUD\$25 million in extra revenues to them," Hannebery says.

Compudigm's data visualization systems have garnered two Smithsonian Institute Moritz awards for heroism in technology (2001 and 2002) and the Data Warehousing Institute's award for Best Data Visualization Tool in the World.

Hannebery credits the company's relationships with both the Crown Casino and Harrah's to getting their name in the gaming industry.

Compudigm is now busy installing its seePOWER systems at Hollywood Casino Aurora and at Victories Casino in Michigan. The company is also in talks with Penn National Gaming (owners of Hollywood Aurora) and Park Place Entertainment.

—Andy Holmann

do that. It's really a commitment from the top down."

The relationships between Harrah's, Teradata and Compudigm have been fostered into strategic partnerships. Harrah's agreed to be the case-study model for Compudigm and Teradata at the recent Retail Systems 2003 trade show in Chicago.

Harrah's also recently launched TR2, the next generation of Total Rewards. The key new feature is that players can now bank their rewards and comps to save up for large prizes.

"We designed it, as we have wanted to all along, as sort of a centralized banking system. We're now allowing people to bank their comps, to accrue the value from the program and apply it to stuff outside the program," Stanley says. "They can now save up for things like a Royal Caribbean cruise, getting a horse race named after you, taking a group of six of your friends to dinner at three of our properties in three days, etc. What you find is that people make buying decisions based on perks." **CJ**



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