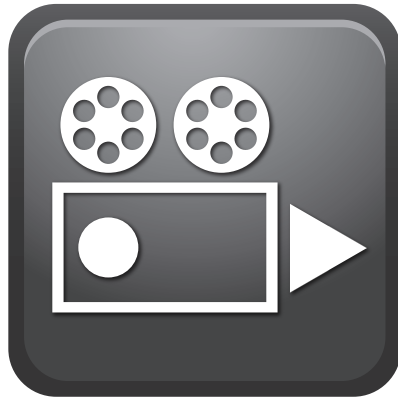


Management Information Systems 16e

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CHAPTER 12 IMPROVING DECISION MAKING AND MANAGING KNOWLEDGE

CASE 3 **Business Intelligence Helps the Cincinnati Zoo Work Smarter**



SUMMARY By implementing a centralized data warehouse with IBM Cognos Business Intelligence software, Cincinnati Zoo and Botanical Garden has revolutionized its business operations, increased revenues, and improved customer service and loyalty. L=4:59.

(a) Cincinnati Zoo Improves Customer Experience, Operations with IBM Business Analytics

URL <http://www.youtube.com/watch?v=IINu15rVKSg>; L= 4.58

(b) Cincinnati Zoo Business Intelligence

URL <http://www.youtube.com/watch?v=LZx5gVqzwMk>; L=2:23

CASE Founded in 1873, the Cincinnati Zoo & Botanical Garden is one of the world's top-rated zoological institutions, and the second oldest zoo in the United States. It is also one of the nation's most popular attractions, a Top 10 Zagat-rated Zoo, and a Top Zoo for Children according to Parent's Magazine. Each year, more than 1.3 million people visit its 71-acre site, which is home to more than 500 animal and 3,000 plant species.

Although the Zoo is a nonprofit organization and is partially subsidized by Hamilton County, more than two-thirds of its \$26 million annual budget is paid from fundraising efforts and revenue from admissions fees, food, and gifts. To increase revenue and improve performance, the Zoo's senior management team embarked on a comprehensive review of its operations. The review found that management had limited knowl-

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edge and understanding of what was actually happening in the Zoo on a day-to-day basis, other than how many people visited every day and the zoo's total revenue.

Who is coming to the Zoo? How often do they come? What do they do and what do they buy? Management had no idea. Each of the Zoo's four income streams—admissions, membership, retail and food service—had different point-of-sale platforms, and the food service business, which brings in \$4 million a year, still relied on manual cash registers. Management had to sift through paper till receipts just to understand daily sales totals.

The Zoo's admissions team had compiled a spreadsheet that collected visitors' zip codes, hoping to use the data in geographic and demographic analysis. If the data could be combined with insight into visitor activity at the Zoo—what attractions they visited, what they ate and drank, and what they bought at the gift shops—it could be an enormously powerful tool for the Zoo's marketing team. To achieve this, however, the Zoo needed a centralized analytics solution.

The Zoo replaced its four legacy point-of-sale systems with a single platform—Galaxy POS from Gateway Ticketing Systems. It then enlisted IBM and BrightStar Partners (a consulting firm partnering with IBM) to build a centralized data warehouse and implement IBM Cognos Business Intelligence to provide real-time analytics and reporting.

Like all outdoor attractions, Cincinnati Zoo & Botanical Garden is a highly weather-dependent business. If it rains, attendance drops sharply—potentially leaving the Zoo overstaffed and overstocked. If the weather is unusually hot, sales of certain items—bottled water and ice cream, for example—are likely to rise sharply, and supplies may run short. Having intelligent insight into these possible outcomes helped the Zoo prepare for these events.

The Zoo has integrated its IBM Cognos solution with a weather forecast data feed from the US National Oceanic and Atmospheric Administration (NOAA) Web site. This enables the Zoo to compare current forecasts with historic attendance and sales data during similar weather conditions—which supports better decision-making for labor scheduling and inventory planning.

Cognos also enabled the Zoo to identify people who spent nothing other than the price of admissions during their visit. The Zoo used this information to devise a marketing campaign in which this type of visitor would be offered a discount for some of the Zoo's restaurants and gift shops. If each of these people spent \$20 on their next visit to the Zoo, the Zoo would take in an extra \$260,000, which is almost 1 percent of its entire budget.

From experience, management knew that food sales tend to tail off significantly after 3pm each day, and started closing some of the Zoo's food outlets at that time. But more detailed analysis from the Cognos business intelligence tools showed that a big spike in soft-serve ice cream sales occurs during the last hour before the Zoo closes. As a result, the Zoo's soft-serve ice cream outlets are open for the entire day.

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The Zoo's new ability to make better decisions about how to optimize operations has led to dramatic improvements in sales. Comparing the six-month period immediately following the deployment of the IBM solution with the same period of the previous year, the Zoo achieved a 30.7 percent increase in food sales, and a 5.9 percent increase in retail sales.

**VIDEO CASE
QUESTIONS**

1. Why was Cincinnati Zoo losing opportunities to increase revenue?
2. Why was replacing legacy point-of-sale systems and implementing a data warehouse essential to an information system solution?
3. Visit the Cognos Web site and describe the business intelligence tools that would be the most useful for the Cincinnati Zoo.
4. How did the Cincinnati Zoo benefit from business intelligence? How did it enhance operational performance and decision making?

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