

Hitachi helps ITV reach BARB gold standard

Better business intelligence keeps ITV on top

Steve Bottomley, director of business at ITV, thinks pressure is good. Although he admits that too much stress is harmful, he is certain too little is far from ideal. Just the right amount, he believes, and you are inspired.

"People come into the media industry," he says, "because it's an interesting, buzzy environment, where you regularly work under pressure. For me and many others, it's inspirational. We thrive on it."

Bottomley is well aware that pressure can sometimes lead to frustration.

Heading up a team that forecasts TV viewing, he helps ITV optimize the commercial value of ad breaks. In the language of television, he provides data to maximize commercial impacts, where an impact represents one viewer watching a thirty-second advertisement. Delivering this kind of data involves crunching millions of numbers, then presenting the information in a clear and understandable way to give an insight into program performance.

Big budgets, massive data sets

Bottomley has a heavy workload. ITV is the largest commercial television company in the United Kingdom, with almost 50 percent market share and an annual spend of around £1 billion (US\$ 1.98 billion) on programming. In addition, the TV industry must abide by guidelines set by watchdogs in

order to control how broadcasters maximize commercial impacts across all demographics. Bear all this in mind, and you will understand the forces under which Bottomley operates every day.

Ask the director of business strategy and his team, and they will say that they can deal with the intense workload. If there was one thing they could change, though, it would be the hours spent putting figures into a format that executives understand. "There is nothing more frustrating than being paralyzed by inaccessible information and having to fiddle around with data to get to it," says Bottomley.

The problem was the result of working with disparate IT systems, a legacy from the birth of ITV plc in 2004 following the merger of the two largest individual ITV broadcasters, Granada and Carlton. Bottomley and his team inherited systems from both companies, and sometimes the technical knowledge needed to extract information was beyond the IT-savvy director.

He says: "We could turn around data on an individual program reasonably quickly, if we knew its whereabouts in the legacy data systems. But, if we didn't, we needed to pinpoint the individual who could deliver the information. Remember we have 6,000 or so employees, so identifying the right individual could be problematic."



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Crunch time

For Bottomley, crunch time came when the team had to provide a return on investment (ROI) figure for Drama, a department with an annual budget of approximately £225 million (US\$ 440 million). The figure took six weeks to generate and was only 85 percent accurate. Not long afterwards, another ROI figure request came in, this time for Entertainment. "It was just too hard. We tried but couldn't do it, and this was unacceptable."



Better intelligence

Together with Ian Whitfield, ITV's director of broadcast technology, Bottomley outlined their requirements for the new system:

1. Excellent performance performance to consolidate information from a variety of sources, including the Broadcasters' Audience Research Board (BARB) and internal departments.
2. Reliability and superior analytical capabilities to rapidly provide users with an integrated view of both the external and internal worlds of ITV.

Whitfield pinpointed what the new system, described as a data warehouse, would give the company: BI – business intelligence. "The data warehouse would give timely access to vital information accessible to around fifty people in a number of teams within ITV. In addition, it would give us the ability to monitor and understand viewing behaviors and improve accuracy in forecasting audiences." With this insight, ITV would gain a competitive advantage over media agencies and other media owners who would not have the capability to analyze data so effectively.

Whitfield researched the market for possible solutions, and spoke to technology-related research company Gartner and major IT vendors.

Whitfield also looked at the existing ITV infrastructure, specifically with business value in mind. Based on feedback from Gartner and his own assessment, Bottomley learned that Microsoft technologies most closely matched the company's aims.

From this point, the situation moved rapidly. Whitfield says: "We spoke to Microsoft, who provided the right level of expertise for this kind of implementation. We then prepared a business case

internally for our investment committee, which approved the plan."

Flexible and easy-to-use platform

ITV worked with Microsoft Gold Certified Partner Hitachi Consulting (formally Information Management Group Ltd) to create a BI platform offering highly sophisticated analytics and reports. The platform consists of Microsoft SQL Server integration, analysis, and reporting services, Microsoft Office SharePoint Portal Server and Microsoft Office Excel, creating an end-to-end Microsoft BI solution.

Thanks to the technology's excellent interoperability, deployment ran smoothly. However, the success of the data warehouse, to a large extent, relied on meeting the qualitative controls to do with processing data from BARB. The organization provides estimates of the number of people watching television, the cornerstone for pricing models around TV ads. To avoid disputes, BARB has created a gold-standard methodology about processing this data which broadcasters must comply with.

Hitting the gold standard

To meet this gold standard, the new ITV data warehouse had to break new ground. Whitfield explains: "Currently, there are fewer than ten media companies in the world that can deliver this methodology, and all of them have deployed IBM mainframes." All parties worked together to ensure the new data warehouse could meet this quality threshold, and the investment paid off. Whitfield says, "We achieved the gold-standard methodology using SQL Server technology, the first time it had been tried in the industry. It really highlighted the advanced capabilities of the software."

Whitfield also had the challenge of the data warehouse, storing around 220 GB of data, rapidly processing huge quantities of information – fourteen million rows of data pouring into the data warehouse daily, to be precise - and a processing window that ended with the following day's business. "Modelling the data correctly was crucial," he says. "It took a long time and we had to validate our models with all the key users, and work with Hitachi to apply them."

Despite the challenges, deployment was a success, a result of the experience and expertise of Hitachi, and ITV's Business Data Warehouse went live in the latter half of 2005. Whitfield says, "I was impressed with the company's professionalism and pleased with the excellent level of customer service delivered."

Rapid adoption, better working

For ITV, the data warehouse and BI solution are slotting easily into the working lives of employees. People find the familiar interfaces such as Excel, SharePoint Portal Server and SQL Reporting Services simple to use, and only minimal training has been needed. Employees are keen to exploit the productivity gains from having BI readily available.

Whitfield comments, "Since implementation, we have seen a significant reduction in the time required to provide essential, actionable intelligence, which has improved efficiency. It has also helped various business groups within ITV to make better, more informed decisions with greater speed."

Encouraging innovation, driving new solutions

This is not the only first which ITV has achieved with its new data warehouse. Whitfield and his colleagues have exploited the flexibility of the platform to include hypothetical modelling. This provides employees with real-time insight into operations, supporting better forecasts. For example, users can create predictive schedules, then integrate this data back into the warehouse to provide real-time KPI analytics.

Dig to a deeper technical level, and you can see that ITV and Hitachi have succeeded in taking the technology behind the data warehouse and tailoring it to the company's specific business needs. In Whitfield's words, "The platform encourages innovation. We have made extensive use of its features to drive business intelligence."

Supporting a changing market

TV regulation in the UK has changed to help maintain a competitive environment. The introduction of contract right renewal – a mechanism to avoid monopolistic pricing – and the emphasis on commercial impacts put a strong emphasis on managing and analyzing large and complex data sets. The Business Data Warehouse gives ITV the tools to meet these challenges.

Now, with the technology in place, ITV can comply with industry regulations at the same time as protecting its commercial revenues. With graphical data at their fingertips showing current performance, executives can quickly make the right decisions to maximize their relationships with partners and customers. Furthermore, the company can avoid the expense of buying analysis data from third parties, which often did not integrate well with internal data at ITV.

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In the longer term, as the industry continues to evolve, this kind of insight will continue to be invaluable. The era of digital services is upon us, bringing with it an ever-growing array of channels and other outlets. For companies such as ITV, this creates uncertainty, because with digital services it faces hundreds of competitors. However, with the SQL Server solution in place, Bottomley and his team will provide continuous insight into the population's viewing habits, helping ITV to track the profitability of programs easily. The company is now in a much stronger position when deciding which programs will attract the majority of digital viewers.

Maintaining the buzz, enticing new recruits

Certain in the knowledge that he can provide the data to keep the business on track, Bottomley is looking forward to the challenges ahead. In addition, he knows that he is not alone in benefiting day to day from the power of the data

warehouse. "It will deliver great benefits to other departments such as research, advertising sales and knowledge management," he says.

He can now look back and smile about the time when it took weeks to accumulate, reconcile and present data to highlight the company's KPIs. For Bottomley and the fifty people using the data warehouse, the process is now completed at the click of a button. "I entered the media industry with the sense of it being a buzzy environment. It would be sad if it lost that appeal in the eyes of the talented youngsters I employ. I think now we're in a better place to maintain that outlook. And pressure? I can't imagine my life without it. It keeps you on your toes."

About Hitachi Consulting

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