



Australian National University

Entering a new age of enlightenment with advanced analytics from IBM

Overview

The need

ANU saw opportunities to improve its financial and operational management in a range of key areas such as student retention – but to achieve these goals, it needed to gain greater insight into its data.

The solution

ANU decided to reboot its analytics strategy, building new planning, reporting and modelling capabilities based on a combination of IBM software, a skilled in-house analytics team, and expert partners.

The benefit

ANU has already accelerated its budget process by two months, and is now developing analytics tools that will help predict student attrition, optimise research management, and improve course design.

Many universities that regularly achieve top national and international rankings would be inclined to rest on their academic laurels. But for the Australian National University (ANU), consistent success is a result of a continuous effort to improve every aspect of its operations.

Chris Grange, Chief Operating Officer at ANU, comments: “We’re still a front-runner in the academic stakes, but we realised there was an opportunity for us to maintain and extend our lead if we could get smarter about how we use data. We want to build a set of capabilities that will help us understand and manage our financial, operational, and academic performance. This will not only enable us to optimise the way we operate, but also to attract and retain the best students.”

However, with vital data held in 30 separate IT systems, getting an accurate view of performance was a major challenge. Without an easy way to gather, verify, analyse and present information, university leaders often had little ability to identify problems or seize new opportunities.

“It was time for a clean slate,” says Chris Grange. “When I joined the university 18 months ago, I was given a mandate to transform the way we use data across the whole university.

“We created a wide-ranging analytics roadmap, covering everything from the budget process to predictive student retention analysis, and it was clear we needed a set of tools that could cover all those bases. IBM is one of the few vendors that can offer that breadth of capabilities.”



Analytics has the potential to transform the way an organisation thinks – and thereby improve the way it operates. “The most important change is cultural,” explains Chris Grange, Chief Operating Officer at ANU. “By using our data to show people new opportunities, we’re moving from a debate about finance to a debate about how the university achieves its goals.”

Solution components

Software

- IBM® Cognos® Business Intelligence
- IBM Cognos TM1®
- IBM InfoSphere® DataStage®
- IBM SPSS® Modeler

IBM Business Partner

- Cornerstone
 - Excelerated Consulting
 - Tridant
-

Embarking on the road to enlightenment

ANU decided to invest in a suite of IBM® Watson™ Foundations technologies, including IBM Cognos® Business Intelligence for reporting and dashboarding, IBM Cognos TM1® for financial performance management, IBM SPSS® Modeler for predictive analytics, and IBM InfoSphere® solutions for data quality management.

“Our first project was to re-engineer our budget model in Cognos TM1, which was a big success,” explains Chris Grange. “Now we’re just about to launch a set of student analytics tools in Cognos Business Intelligence which will allow us to analyse grade distributions and demographics.

“For example, we’re currently analysing postcodes to help us understand where students live and how this affects their performance. Do the 5,000 students who live on campus achieve more than those who live elsewhere? This kind of analysis has never been possible before, but it could really help us make better decisions about how to maintain the highest possible level of academic performance. We’re also considering plugging in a graphical geospatial analysis tool to help us take this to the next level.”

The university has also been using SPSS software to analyse student survey information, and is currently piloting a number of projects with IBM SPSS Modeler to complement its historical analytics capabilities with forward-looking business intelligence.

“One key example is student retention modelling,” says Chris Grange. “We know that factors such as how often a student logs into university systems can act as predictors of whether a student is likely to drop out. We want to combine those factors into a model that gives us an early warning when students are becoming disengaged, so we can try and help them have a better time at ANU and achieve their academic goals.”

Another example takes analytic information on student admissions applications from IBM Cognos Business Intelligence, and uses it to drive a forecasting module of future student enrolments in IBM Cognos TM1, which will ultimately be integrated into the university’s financial projections.

“We have transformed the way our finance team works at budget time. The automation of IBM Cognos TM1 has cut two months of work out of the process.”

— Chris Grange, Chief Operating Officer,
Australian National University

Initial results point to long-term benefits

Current evidence suggests that ANU’s new analytics strategy is the right way for the university to go.

“Looking at our budgeting solution, we have transformed the way our finance team works at budget time,” says Chris Grange. “The automation of TM1 has cut two months of work and a lot of noise out of the process. Last year it took six meetings to build the budget and there were numerous discussions about whether the figures were correct. This year it took just two meetings and there were zero disputes, because everyone is confident in the TM1 process.”

The ANU team expects to see similar benefits from the other analytics tools it is currently developing, and has drawn up a long list of future projects, involving student load analysis, investment management, research performance monitoring, and tuition fee and revenue analysis.

“We want to use TM1 for activity-based costing, which will reveal the true costs, revenues and profitability of each of our courses,” says Chris Grange. “We’ll also look into the combinations of course modules that students are taking, which should help us to come up with more appealing courses. Even a cursory look at the data shows us that we have students who are doing combinations we would never have invented ourselves! So we’re eager to see what the opportunities are.”

He concludes: “We’ve made our objectives very clear and we’re making remarkably fast progress towards them, for three main reasons. First, we have strong support from the executive level, and my position as COO helps to balance the business and IT sides of the equation. Second, we’re building a very skilled in-house team, complemented by expert partners such as Cornerstone, Excelerated and Tridant. And finally, the IBM tools give us the power to turn our vision for analytics into a reality.”

About Australian National University

Established by an act of parliament in 1946, ANU is one of the most celebrated academic institutions in the country, and frequently rated as one of the top 100 in the world. Six of Australia’s 15 Nobel Prize winners are ANU staff or alumni. The university has more than 20,000 students, employs over 4,000 staff, and has an endowment of more than USD1 billion.

To learn more about ANU, please visit www.anu.edu.au

About IBM Business Analytics

IBM Business Analytics software delivers data-driven insights that help organisations work smarter and outperform their peers. This comprehensive portfolio includes solutions for business intelligence, predictive analytics and decision management, performance management, and risk management.

Business Analytics solutions enable companies to identify and visualise trends and patterns in areas, such as customer analytics, that can have a profound effect on business performance. They can compare scenarios, anticipate potential threats and opportunities, better plan, budget and forecast resources, balance risks against expected returns and work to meet regulatory requirements. By making analytics widely available, organisations can align tactical and strategic decision-making to achieve business goals.

For more information

For further information please visit ibm.com/business-analytics



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