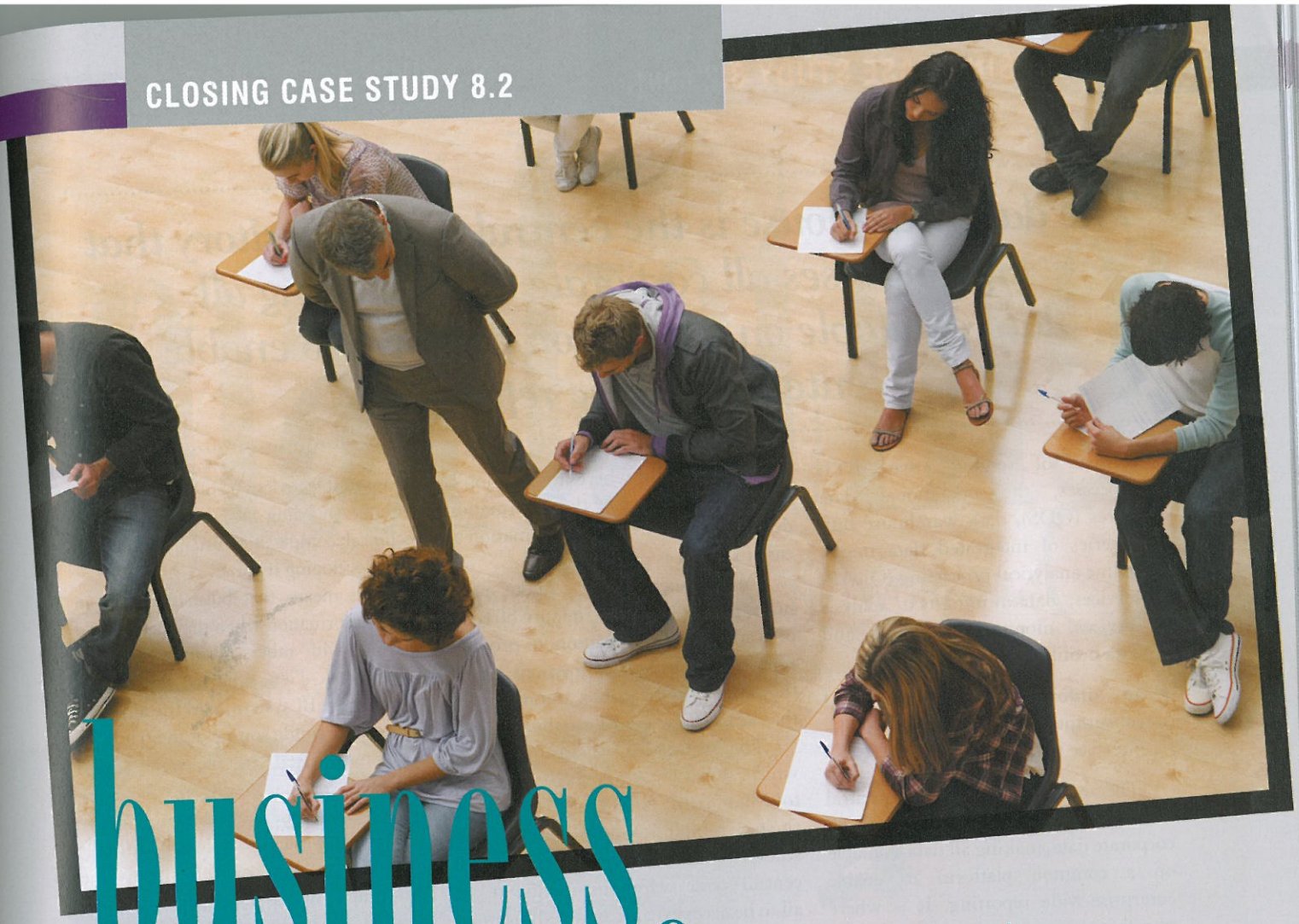
CLOSING CASE STUDY 8.2



# business information IN HIGHER EDUCATION

DALE MACKRELL AND QUAN RUSK-TIEU, UNIVERSITY OF CANBERRA, ACT

The University of Canberra (UC) is located in Australia's national capital, Canberra. Over recent years, UC has been implementing a powerful BI capability. BI at UC comprises the skills, technologies, applications and practices involved in delivering information to internal and external parties to support organisational decision making and business processes.

The layers in UC's BI capability include:

- **a data capture layer**, which consists of operational systems that are responsible for capturing structured, semi-structured and unstructured electronic data used by the data warehouse. The components of the data capture layer consist of internal and external data, flat files and meta data
- **a data warehouse layer**, which is a foundation layer for BI and essential to support the provision of data and information for integrated decision support that improves decision making. The data warehouse layer

*The data warehouse is the central data repository that encompasses all corporate data, making all data available on a common platform to enable enterprise-wide reporting.*

consists of staging areas, ETL processes, the operational data stores (ODS), data warehouse bus, a series of integrated data marts, online analytical processing (OLAP) services, data mining/text analysis services, monitoring services and data profiling components

- **an information delivery and consumption layer**, which is the interface to the warehouse.

The data warehouse is the central data repository that encompasses all corporate data, making all data available on a common platform to enable enterprise-wide reporting. It is where transformation takes place that turns the data into valuable information which can be used to measure, evaluate, monitor and manage business performance.

The information delivery and consumption layer is the interface to the warehouse. It is what the business sees and uses and where information is accessed. The goal of the information delivery layer is to make information as easy to access as possible.

For instance, it used to take many hours for Mr Snowden, deputy director of academic administration, to produce reports on student admissions. Now they appear in his in-box automatically, thanks to UC's new BI capability.

The web-based reporting system, which went live in 2010, brought together data from the university's finance, human resources, research and student administration systems into a central data warehouse—allowing it all to be accessed and analysed together. For Mr Snowden, this system means that the reports, which are vital to the university's planning process, take a fraction of the time and include data from all sources.

One of the main benefits of having an enterprise-wide BI solution is that business areas are able to design and author reports without needing to understand the technical complexities usually associated with developing reports.

This means that business areas can access information when they need it and share it with others. Project manager Quan Rusk-Tieu, who led the project to build the BI system, said the aim was to create a 'single source of the truth'.

'There used to be some quite complex, manual coding involved for people to analyse data from university systems, and it was particularly difficult to look at information from the different systems simultaneously. The new BI system has all the information you need in one place and it is easy to use. This is a powerful tool to release the potential of the information the university has in its systems. It will help us make better business decisions,' said Mr Rusk-Tieu.

## Questions

1. What do you think Mr Quan Rusk-Tieu meant by the term 'single source of the truth'?
2. What data would be useful in a university data warehouse?
3. Who would be expected to benefit most from using a university BI system?
4. What business outcomes could be achieved with a BI system?
5. Why is the data warehouse important?