



Helping higher education overcome key challenges

With huge budgets, a diverse range of resources and a massive number of variables, it's easy to see why decision-making in a major university has been likened to running a small town. Universities have faced a series of difficult challenges in recent years. The pandemic caused a shift in student expectations. Further inflationary pressure matched with frozen tuition fees sets a new challenge for planning teams. There is a growing recognition that now is a pivotal time to re-focus strategies and move forward. Positive transformation is being enabled by breaking down existing forecasting and planning silos and running them on a single platform where accurate, real-time data analysis is possible.

The current landscape

Arguably more than ever, universities today play a crucial role in society as engines of social mobility and driving economic growth.

As institutions, universities still represent important growth anchors in towns and cities – not just as hotbeds for entrepreneurship and innovation, but also as capital investors, with campus (re)developments creating jobs, changing skylines, and altering civic identities by opening up spaces to wider audiences.





The challenges

Universities are in a period of unrelenting change. The UK leaving the European Union has led to a decline in applications from EU students while the switch to online studies due to the Covid-19 pandemic has accelerated a move to digital study.

Universities have faced increasing operational costs and changes in funding streams. There have been inflationary pressures on wages and the annual tuition fee cap has been frozen at £9,250 for three years, piling further pressures on higher education finance teams and shrinking already tight margins.

At the same time, student expectations have shifted in terms of the quality of teaching and the facilities on offer. Not only do students demand a higher standard of education but the growth of the international student market means universities are now having to compete with institutions from across the globe.

The perennial challenge facing universities is having to make sure their research is sustainable in the long term, which means finding ways to attract and retain the best academic staff while ensuring research funding is spent effectively. Costs are rising across the board, whilst revenue is broadly staying the same. To stay a leading and reputable university (important if you want to attract the best talent and a volume of international students) the university must do good research, however a large proportion of all research is loss making. The dynamic pace of societal change means they must also be able to adapt their research programmes to the changing needs of industry and society.

Whether or not the government of the day acknowledges the vital role that universities play, it's clear that the institutions need to become more resilient, cost-effective and further responsive to change. They also need to be able to protect income streams and continue to fund their faculties effectively, feeding value into the economy and both local and regional communities.

The pivotal role of finance

It would be unwise to focus on these challenges negatively and we should never dismiss the many opportunities that universities offer in terms of economic success. **For example, the Policy Exchange think tank recently found that every £1 spent on research generates £7 for the economy.[1] Above all, we should not ignore how pivotal the role of finance can and will be in the stability and future growth of universities.**

There is a growing appetite for reform within the higher education (HE) sector. Leading universities have been calling for a more strategic investment approach. To achieve this, universities need to embrace a more proactive methodology for financial planning and not simply be reactive in times of crisis. The collective mindset of finance teams must move from cost control to value creation if universities are to become more sustainable and have a more substantial and beneficial impact on society.

Data analytics can support finance leaders and those in strategic planning roles by helping them build robust future plans based on accurate and reliable real-time data. It can provide the opportunity to think in the long term about strategy instead of making ad hoc alterations.

Finance and data are inextricably linked, with a university's finance department in effect the gatekeeper because they hold so much information on costs and income while having direct access to, and an in-depth understanding of, the relevant data.

Universities will struggle to deliver effective management information and financial insight without the right tools to deal with the complexity of running a successful university.



The impact of accurate student planning

The Higher Education Statistics Agency (HESA) reported the proportion of funding from each source for the academic year 2020–21 as follows: [2]

- 1. Tuition fees and education contracts (53%)**
- 2. Funding body grants (14%)**
- 3. Research grants and contracts (15%)**
- 4. Other income (16%)**
- 5. Investment income (1%)**
- 6. Donations and endowments (2%)**

The importance of the accuracy of student planning cannot be overstated. Student planning often goes through an FP&A team and if the data analysis is wrong the whole income model of a university can be undermined and compromised.

The complexities that any financial model in a university needs to deal with come from the wide variety in course types and lengths, different funding streams (including private and public), huge variables in terms of student numbers, demographics and nationalities, and even different

tuition fee prices (such as £25,000 for international students compared to £9,250 for UK students).

The complexity is amplified as universities need to factor in a certain level of drop-outs throughout courses, whether students transfer in or out of a course part way through the year, or whether they go on to do a Master's degree. In addition, universities must weigh up the staff-to-student ratio (SSR), which will influence how many courses are run and how many lecturers and support workers will need to be employed.

In recent years there have been surges in the number of non-specialist subjects taken at universities, which are very difficult to analyse in terms of the resources required (including equipment) and therefore what the costs are per faculty. Finally, Joint Honours degrees have also upset the apple cart in terms of funding and resourcing – if someone is studying for a physics and music degree, who owns the course, who charges for it (and how) and who funds the lecturers?

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As the complexity continues to increase, accuracy can wane, particularly as due to ageing technology infrastructure, too much data is held at the source level, without the ability to turn it easily and consistently into information that can be used by decision-makers for financial and strategic planning. This lack of insight prevents smart decision making, and the ability to see the financial consequences of decisions... which in turn creates more risk.

There is a place here also for connected planning (extended planning and analytics) in which data from across the institution is used to work out strategically what the university should do to increase revenue and reduce pressure on those squeezed margins.

Backed by data, scenario planning could include, for example, whether a university invests in property to house students and generate income from rentals, or makes more online courses available to students overseas, or focuses on exceeding environmental, social and governance (ESG) targets, which could lower costs and attract more students.

All of these areas also go towards improving the student experience and their want to stay the course: better planning, better accommodation and more in tune with what the student, your customer wants.



Creating value

Finance teams themselves often tend to be small and overstretched, consequently they are spending too long managing the numbers rather than having time to deliver the analysis and insight required to add value.

Updating the skills and knowledge to provide the required level of insight is paramount to achieving financial resilience for organisations that are highly profit-sensitive and need to be sufficiently dynamic and agile to make decisions quickly and accurately.

Applications such as Excel are clearly out of their depth when it comes to financial planning and analysis in universities and cannot be a serious tool of choice. Whilst Excel will always have a place in analysis and planning, the critical requirement is for a multi-dimensional planning tool that is capable of managing extremely large volumes of data as well as all the various complexities within that data.

Such a tool would need to be trusted, not least to cope with the multitudinous factors that universities now deal with but also to allow other models to be added, each with their unique complexities. These can include student accommodation, resource projects, in-year CF forecasting, balance sheets, capital projects and food, drink, and entertainment (catering), and so on. If fully integrated planning is put into place, each model added to the system can add more value and encourage finance teams to become value creators rather than mere scorekeepers.

As Dan King, Director of Planning and Organisational Performance at the University of Surrey, says: "Data is at the heart of all universities."

Achieving financial sustainability through intelligent use of data

A financially sustainable university must find ways to generate income that doesn't only rely on government funding and/or students' tuition fees. Of course, many methods have already been explored, including commercialising research, developing new products and services and working more collaboratively with businesses.

What is vital is that universities have a clear understanding of their costs and revenues and that this information is used to inform decisions about how to generate income and where to allocate resources. Only with this knowledge can universities hope to achieve financial sustainability. Underpinning this requires sound

financial data intelligence and robust data structures, which despite cutting-edge infrastructure elsewhere, is operating at inadequate levels in most institutions.

Part of the reason for this is that the use of Excel still proliferates in universities, which raises issues of data quality, zero audit trails and uncontrolled sprawl (some general ledger systems can contain more than 30,000 internal reporting lines). Finance teams will never completely move away from using this incredibly versatile tool for manipulating data.

Building a solid data strategy

Along with exponential growth in the volume of data produced comes the need to collect, manage and cleanse that data to ensure the highest quality and usefulness. Legacy data management systems usually struggle not only to access but also to integrate such vast amounts of data in a way that is beneficial to the institution.

When it comes to strategic planning at HE institutions, the increasing levels of complexity – whether relating to environmental issues, societal changes or changing demands of staff and students – are influencing the decisions and choices that colleges and universities have to make.

Of course, the quality of decisions made is only as good as the data that informs them. That means HE institutions need a strong focus on data quality and data management. Universities must adopt a new approach to data sharing, to get a complete understanding of the needs of all stakeholders – but especially students.

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Risks of not adopting an effective data strategy

A spreadsheet-first approach to financial planning and analysis can often mean that data is siloed, there are numerous unlinked systems and applications from which data is copied and pasted across. These processes frequently lead departments to invent manual workarounds and duplicate efforts to collate, check, and analyse data. This can be time-consuming, and inefficient, and increase the risk of errors creeping in. The lack of reliable, joined-up data hampers proactive and effective business planning, reporting, and marketing activities.

A good data strategy will reflect the strategic aspirations of the HE institution and will therefore vary by university, however, there is a golden opportunity to adopt a refreshed data architecture and implement a centralised data catalogue that will help deliver a searchable base to provide the business and technical teams visibility of the data and supporting assets available in the organisation. The ambition is a seamless data flow that enables democratised and globalised analytics to support planning, deliver financial resilience, and operational efficiency, and the data to support ESG goals and maintain reporting standards for safeguarding.

[Read more about how the University of Surrey is streamlining budgeting processes](#)



Conclusion

As the world becomes ever more data-rich, there is a need for higher education institutions to seize the opportunity to utilise advanced data management, AI and analytics technologies to strengthen their financial resilience and make smarter decisions. By using data to inform decision-making, higher education institutions can more effectively meet the expectations of students and staff, as well as those of the wider community, society and the environment.

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Data sources:

[1] <https://publications.parliament.uk/pa/cm201719/cmselect/cmsctech/1453/145305.htm> (08.11.23)

[2] <https://lordslibrary.parliament.uk/financial-pressures-on-higher-education/> (08.11.23)

