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Using Technology In Higher Education to Manage Operational Cost

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Higher Education is changing. Fast. In our first paper we highlighted the **pace and breadth of change** affecting University life, considered **some of the challenges institutions face** and outlined the different **strategies being adopted to ensure ongoing success.**

Since our first paper was published there have been concerns about the increasing deficit at multiple UK Universities and in November three Universities were reported to be on the brink of bankruptcy and closure. With fierce competition for revenue, changes to pension costs and investment in transformation programmes there is an urgent need to proactively control operational costs.

For this reason, we are focusing on **technology** and **cost management** in our second paper. Specifically, how technology can be used to **support Higher Education Institutions** in **addressing** these increasing **cost challenges.**

CONTROLLING YOUR SPEND

Universities in the USA closing and merging was a topic for debate in our first paper. The USA is reliant on student and grant funding and the decline has been explained by revenue not keeping up with operating expenses. These changes in the USA provide a potential picture of the future in the UK for Universities that do not start to focus on operational spend.

In the UK, 55% of Institutional spend is committed to direct spend on teaching and research (1). Therefore, there may be an opportunity to address indirect spend related to operations, in particular investment in IT. Significant IT operational time and finances are currently devoted to servicing operations, leaving little room for innovation.

In 2016-17 **deficits** at individual universities ran as **high** as **£14 million**, and up to nearly **9%** of total income. Times Higher Education (2)

The institution is in a **"barely financially sustainable position"** …need to increase savings to improve the institution's cash flow.
Provost, UCL Times Higher Education (3)

Cloud solutions can reduce capital expenditure (CapEx) investment, by moving IT operations into an operational expense (OpEx), with regular monthly fees. The true value of Cloud solutions as an IT cost relates to the infrastructure itself. On-premise solutions have been scaled to cater for maximum use; paying for maximum utilisation and maintenance despite the fact maximum workload may only occur once or twice a year, for example, during student enrolment and year-end financial reporting. Universities rarely know the total utilisation of their IT systems. For on premise solutions this can potentially be as low as 20%. Technical teams will talk about provisioning. In non-technical language this means Universities can scale their Cloud solution depending on demand. For example, during clearing and enrolment requirements can be scaled-up and when complete scaled-down, or 'de-provisioned'. Essentially, Institutions only pay for what they use.

80% of businesses purchased a server with **more capacity** than they needed.
Data Center Knowledge (4)

Institutions can use Cloud solutions to help them effectively control costs. An integrated Cloud solution ensures that double handling of information is kept to a minimum, processes are standardised and in many cases automated – all increasing the productivity of staff. Universities will be able to set spending budgets, monitor costs more effectively and analyse performance against forecasted budgets. Real-time data enables proactivity in identifying and addressing overspend. Interactive dashboards provide advanced analytics in accessible tools, even for staff with limited technical skills. This raises the question of the University readiness for this change. Finance staff will need to transition from manual data extraction and manipulation, on behalf of the wider organisation, to performing a more proactive way of working – acting as business partners to schools and departments. This may appear a challenge when implementing, however it brings with it multiple benefits, release from on premise maintenance, an up to date, relevant solution with standardised practices and reduction in manual processing. Cloud solutions are developed to systematise processes that are not core to an organisation enabling priority to be given to education and research.

In 2016-17 UK Universities spent **£3.1 Billon** on libraries, IT and museums.
Universities.ac.uk (5)

CONTROLLING YOUR PURCHASING

84% of **procurement organisations** believe digital transformation will **fundamentally change** the way their **services are delivered** over the next three to five years.
The Hackett Group 2017 (6)

Previously, we outlined the importance of Universities putting greater checks and control over procurement spend in order to manage indirect costs. Higher Education Procurement Association (HEPA) are helping to build greater capability and expertise in Universities (7). Procurement has a major role to play in Higher Education, annual buying plans can help forecast and manage spend and risk, and efficient delivery of products and services supports University core operations. With the right Supply Chain Management Solution Procurement teams can deliver the required efficiency reports, streamline purchasing processes and put in place a robust approval process that puts control with budget holders. Procurement will be able to exchange documents and purchase orders online with suppliers and manage purchasing compliance through increased visibility and reporting of spend analytics.

Identifying and implementing your Supply Chain Management solution is only the start of your journey. Engaging and gaining ongoing commitment from your staff and suppliers to ensure they comply with using new system may be a challenge during implementation. Rolling out a structured approach to approvals which may alienate your academics after years of spending freedom and applying supplier catalogues to a group of people who have been used to selecting items based on their personal preference will need addressing as part of your readiness activities.

The **experience** for **IT** and those that are **utilising the applications** needs to **be seamless, secure and streamlined.**
Forbes (8)

MANAGING RESEARCH FUNDING

33% of Universities income in the UK overall comes from Grants and Research (9). Evidence of sourcing, application, funding and spend against grants is required for audit. Auditors require access to invoices and expense claims, billing and reconciliation reports, timesheets, contracts of employment, procurement compliance and progress against work plans. Researchers need to know that their expenditure is eligible and made aware when funds from their grant have been reallocated.

In addition to Grants and Research projects, programmes such as Facilities investments will also benefit from visibility, reporting and management of data and project information. With a Project Management Cloud solution you will be able to give project transparency across your organisation. Departments can view and access the same data, replacing spreadsheets and supporting efficient resource scheduling – making sure you have the skilled staff when you need them.

With Oracle's Project Management Cloud, Finance teams responsible for spend oversight against Grants will be able to access information instantaneously rather than wasting time manually manipulating spreadsheet data. Alerts can be set-up to notify Finance when projects are spending time or costs above their forecast. Better planning and scheduling of costs and resources will support researchers and project managers manage and track their projects. Virtual teams, with resources based in multiple global locations, will see the same information. Furthermore, integrating Cloud Project Management with Finance and HR Cloud solutions brings enhanced capability and richer reporting, bringing together financials, salary information and procurement costs.

WHAT DECISIONS DO YOU WANT YOUR DATA TO HELP YOU MAKE?

In our first paper we talked about how the all Universities we have spoken with are completing some level of data analysis. Garry Dowdle, Non-Executive Director at Salford University explained that access to data is core to the delivery of the University Strategic Plan. Academic portfolios have defined performance measures, via a series of Key Performance Indictors (KPIs), and to enable this there has been investment in data extraction and analysis.

We have created 90% of the world's data in the past year, research is also showing that we are only using 1% of the data effectively.
Forbes (10)

Technology has changed the way we all think about information and technology, the desire for digital centralisation – accessing and managing a single source of data and information from a central location from a multifunctional device is becoming a priority. (11). When you are implementing your Cloud Solution ensure that it has the business intelligence capability to take all the information you need from your systems and can provide dashboards, trends and forecasting to help your decision making. If you are a University starting on your data journey look to take your information on applications, admissions, student performance and outcomes into single, or integrated solutions to help you make decisions around student sourcing as a priority.

Importantly, Institutions need to define a long-term data strategy before, or as part of the Cloud implementation. The data structure in your solution should support this strategy to give insight into the operation of your Institution and a framework of reports and dashboards to build on in order to manage staff, complete academic planning around course offerings, track research funding spend and gain more control over operating costs.

Companies that have some sort of documented **Business Strategy** in place should look for ways that current and **future data capabilities** can support this strategy.
Dataversity (12)

SHARING YOUR TRANSACTIONAL SERVICES?

Many articles state the opportunities for collaboration in Higher Education. Universities already demonstrate collaborative working through research and knowledge sharing and increasingly in learning and teaching. The N8 Research Partnership is a commonly cited example of just how well cross institution collaboration can work.

This way of working could be adapted to deliver shared academic services. With increasing focus on cost management, opportunities for collaborative shared services should be considered. Sharing services can bring multiple benefits to Higher Education Institutions. A successful partnership can secure cost savings and make efficiencies sustainable. Staff that are currently focused on processing transactions can be released to focus on more strategic activities that add greater value. For example, aggregating IT systems spend will give Institutions access to best-in-class systems and experts that may be inaccessible given a single Institutions budget. For shared academic services to work effectively there would need to be a service agreement in place, outlining the scope of the shared service, as well as commitment from involved Institutions to automate processes, support data management and remove duplicate systems. Cloud technology and its systemisation of processes can help foster these shared service arrangements.

Higher education is perhaps the **last bastion** of many self-contained producers each **undertaking in-house** almost every aspect of their business operations, even though these operations are **duplicated** in every other competitor
Times Educational Supplement 2019 (13)

CONCLUSION

Higher Education is experiencing a significant period of change with increased competition for students, international students and grants. Some institutions are already starting to feel the financial pressure of these changes, and in this paper we have proposed that the implementation of Cloud Technologies, for students, academic staff and professional services staff can be utilised to address these financial pressures.

Expense and Labour Management solutions can improve payment accuracy and control. Project Management solutions will help keep track of project spend against forecasts whilst ensuring compliance with Audit requirements. Finally, Supply Chain management solutions can support Higher Education Procurement teams in managing spend, purchase order compliance and risk management.

Many of the Cloud Solutions discussed require changes in how Higher Education staff interact with technology in the future and highlights how roles will need to change as a result. Access to dynamic dashboards and insightful reports will provide you with the opportunity to proactively address issues as they arise, not when they are highlighted in month end reporting, or in statistics provided to HESA and OfS and some careful thinking about your data model and what you need from it in the future will ensure that you get the best out of your reporting.

The true benefits of Cloud solutions are only realised with an implementation that engages users, supports the evolution of the role of the Academic and professional service roles and plans for sustainability. The main goal of Cloud implementation is not simply ‘go-live’, embedding effective repeatable ways of working, robust governance in adopting new functionality over time and an appropriate service and support model are equally important for Higher Education Institutions.

ABOUT ORACLE BUSINESS TRANSFORMATION

We are a team of experienced consultants with backgrounds in business transformation and change management. We assist successful solution adoption by facilitating business readiness before and during implementation, by supporting customers in transforming their organisation and ways of working, and by helping our customers to build internal capability to own and support their solution post go live.

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