



Emerging technologies are shaping the future of education. Educational technology (EdTech) companies are enabling innovative learning paths through digital platforms that support formal education. According to a recent survey, the majority of chief information officers in higher education view digital transformation as critical for success in the next five years. This paper discusses how community colleges and universities can strategize to transform complex business processes across various functional areas of education. It also outlines how higher education institutions can leverage enterprise resource planning (ERP) software-as-a-service (SaaS) cloud through robust approaches that address key challenges in the sector.



Introduction

Community colleges and universities face stiff challenges as students embrace digital technologies and tools to stay competitive in the job market. Such tools offer innovative learning paths and flexible learning options. To stay ahead, higher education institutions must consider ways to enable digital learning pathways and streamline business processes.

One way forward is to consolidate various applications within a single enterprise resource planning (ERP) software-as-a-service (SaaS) cloud platform, leverage best practices, and integrate artificial intelligence (AI). This requires a well-planned strategy to implement ERP SaaS cloud in a way that improves the student experience, enables modernization, increases productivity, and lowers the total cost of ownership.

Key Considerations When Embarking on Business Process Transformation via ERP SaaS Cloud

Higher education institutions such as universities, colleges, and community colleges differ in structure, funding, and purpose, which can impact their drivers and investment for transformation. For instance, a community college is publicly funded, open to anyone with a high school diploma, and offers two-year education programs. Students can transfer credits to a university to complete their bachelor's degree. Compared to universities, publicly funded community colleges are not as expensive, offer shorter programs, and have a more flexible admissions process. These also often lead in educating students in emerging technologies.

Integrating technology into such higher education systems presents challenges due to bureaucratic structures, resistance to change, and limited funding. This can restrict faculty and students to legacy systems and their inefficiencies. Some of the key considerations are:

1. Adoption of a new platform

Higher education institutions looking to implement ERP SaaS cloud face a few challenges around adoption, there are concerns around monitoring the costs of change during the implementation process. There is also the issue of handling business process change requests that were not part of the initial scope. Yet another challenge is overcoming barriers during the design, build, and maintenance of the ERP SaaS cloud solution.

2. Migration of historical data

Colleges and universities often have specific strategies for migrating critical historical data. Al and advanced algorithms can be used to generate insights and enhance decision making to improve student enrollment and retention. However, ERP SaaS cloud transformation programs require strong governance to manage priorities, mitigate risk, and support informed decision making. Program managers must actively monitor the performance of projects and effectively communicate the expected business value when transitioning to the new platform.

3. Resistance to change

Resistance to change is a common obstacle when implementing new technologies. In the higher education sector, change management teams must address and communicate the benefits of technology, ongoing support, and new opportunities. This is important to build confidence among faculty and staff on positive outcomes and foster adoption of the solution. A well-defined strategy aligned with institutional goals, along with open communication and knowledge-sharing, can create a culture that embraces change. Further, collaboration between senior leadership and faculty is critical to ensure timely and comprehensive training and support. This can help stakeholders navigate the transformation process more effectively.



Choosing the Right Implementation Strategy

Addressing the challenges outlined above depends on the type of higher education institution – such as whether private or publicly funded. Institutions can choose from two main implementation approaches based on the investment needed or budget available. These are:

- Staggered implementations: This offers a pay-as-you-go
 approach to ERP SaaS cloud implementation. Most colleges
 and universities use this approach to transform a specific
 functional area aligned with their overall digital transformation
 strategy. This approach is particularly useful in the case of
 niche ERP products for unique business processes in the
 higher education sector.
- Big bang implementations: Some higher education institutions opt for end-to-end transformation of student information, financial management, and human resource (HR) management systems with a long-term view. This involves overhauling the entire legacy landscape to accelerate the adoption of emerging technologies for higher productivity and a better user experience. Table 1 provides a detailed comparison of the staggered and big bang approaches.

Table 1: Comparison of the big bang and staggered approaches to ERP SaaS cloud implementation

Considerations	Big Bang Approach	Staggered Approach	
Transformation capabilities	Implementation of a single end-to-end ERP SaaS cloud platform allows adoption of best practices and emerging technologies for a seamless experience	Implementation of ERP SaaS cloud platform across specific functions can delay the adoption of best practices and emerging technologies	
Implementation timeline	Longer implementation period, which can delay benefit realization Quick wins and faster realization of benefits		
Parallel systems	Provides a seamless experience and eliminates any unnecessary integrations between systems and applications	Requires maintenance and monitoring of integrations between systems and applications	
Change management	Creates a larger impact due to the involvement of and usage by all stakeholders including higher education employees, staff, and students	Transformation impact is restricted to smaller functions/applications, with learnings and shortcomings implemented in later stages	
Cost	Requires higher investment and funding for the transformation program	Requires lower investment while delivering faster returns	



Three Transformation Pillars of ERP SaaS Cloud for Higher Education

The strategy for higher education institutions to adopt ERP SaaS cloud lies in embracing best practices and enabling business process reengineering across three key areas. As shown in Figure 1, these areas are the transformation pillars of ERP SaaS cloud and include student information system, financial management, and HR management.

- Student information systems manage the application process for student admissions as well as recruitment requirements, with a focus on seamless and equitable user experience. They also manage course planning and scheduling along with fees and comprehensive financial aid processing. These activities are performed in compliance with the rules governing financial aid.
- Financial management focuses on the back-office operations of managing tuition fees as well as tracking and automating revenue distribution. It also ensures timely payments are made to purchasing vendors along with refunds for financial aid and reimbursements for employee travel, among others. It provides support for controls on budgets and grants as well as optimal decision making.
- HR management covers the hire-to-retire process. It involves onboarding, engaging, and retaining employees, ensuring security of work history and employee data, managing performance and succession planning, as well as supporting integrated pay-rate, funding, and payroll processing.

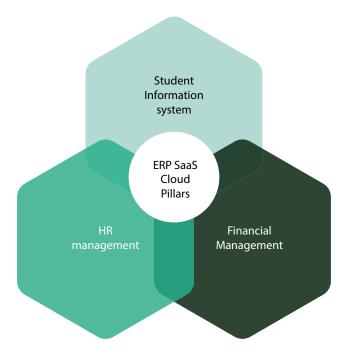


Fig. 1: Three transformation pillars of ERP SaaS cloud for higher education



Benefits of Using ERP SaaS Cloud

ERP SaaS cloud implementation involves redesigning business processes. This is necessary for sectors like higher education due to the heavy reliance on human resources and knowledge to stay efficient and competitive. Figure 2 shows the different functional ways colleges and universities can benefit from the foundational transformation enabled through ERP SaaS cloud.

Business Focus Areas	Student Information System	Financial Management	Human Resources Management
Functional Capabilities	 Student relationship and engagement management Recruitment and admissions Student lifecycle and experience Student portal Financial aid and planning 	 Budget and financial planning Grants management Accounts receivable and payments Procurement and accounts payable Financial aid applied Asset management Financial and tax reporting 	 Hiring and onboarding Personal data Timesheet management Training and professional development Performance management Benefits management Employee and faculty payroll

Fig. 2: Functional capabilities of ERP SaaS cloud

Business transformation in higher education with ERP SaaS cloud can bridge gaps in learning and streamline administrative processes, thereby benefiting faculty and students. It can also improve data insights into student performance, support learning needs, and foster collaboration. Some of the cutting-edge capabilities enabled through such transformation are:

Al-driven learning: Al has the potential to revolutionize higher education by providing students with real-time feedback and personalized learning paths. It can also help ensure responsible and ethical implementation.

Predictive capabilities: Reliable and consistent data facilitates the implementation of data management solutions with enhanced data capabilities. ERP SaaS cloud has robust dictionaries and data definitions that maintain data integrity and quality.



Conclusion

ERP SaaS cloud can revolutionize higher education by driving digital transformation. It focuses on three key transformation pillars, namely, student information systems, financial management, and HR management. This helps support business process reengineering, Al-driven learning, and predictive capabilities. Leaders in higher education institutions can decide whether to opt for a big bang or staggered approach when implementing their ERP SaaS cloud. Ultimately, enabling effective technology integration involves fostering a culture of continuous improvement and innovation by addressing challenges like adoption of technology, migration of data, and resistance to change.

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