ROLE OF ERP IN HIGHER EDUCATION SECTOR

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Introduction:

Change is the fundamental rule of life. Now we are living in advanced world, Information and communication technology have been present everywhere in our environment. The opportunity for making profits from ICT was first perceived by manufacturing enterprises. Then later it perceived by the state and its institutions. **Enterprise resource planning** (ERP) was in full-fledged use in major corporations & in some of the biggest industries, to ease the management process. With the development of technology and widespread demand for computing, concepts have led to the increasing popularity of ERP solutions in other industries like educational institutes. Today, the academic world is aware of the advantages of ERP too. Not only from the point of education and research activities, but also from business outlook. The higher education institutions have shown green signal to ERP systems in order to improve their operations and make them manageable and more transparent.

Now a day, the higher education sector which used to be symbolized by kids learning from a 'guru' under the banyan tree, today, has grown into an industry that requires extensive interdepartmental collaboration even for minor tasks. They want to improve their performance and efficiency, as a result the higher education sector become ready to adopt new strategies in order to improve their performance. In this way, the higher education sector has moved to Enterprise resource planning (ERP) systems in the hope of helping them to cope with this changing environment. The main aim of ERP implementation in higher education sector is to provide schools and colleges with an increased ability for research and teaching at the reasonable & low cost.

An ERP is an Enterprise Resource Planning system a software system that processes institution-wide transactions on a single software system and a single data base.

In concrete terms it lets you save an immense amount of man hours which in turn save you a lot of money. Organization and security of data comes implied in the use of an ERP service. The institutions can forget about the hassles of maintaining piles of paperwork and have everything ready at the click of a button. It also eliminates human effort and reduces the lead time. Finally and most importantly, it leaves you energy and time to focus on the aspect that requires the most attention – Education.

Definition of ERP system:

'ERP means, **Enterprise resource planning**. It defines as the ability to deliver an integrated suite of business applications.'

'ERP is a category of business-management software typically a suite of integrated applications that an organization can use to collect, store, manage and interpret data.'

www.gartner.com

"ERP is like the nervous system for a business,"

Mark Jeffery

"The biggest benefit of ERP is the integration and visibility of data it provides,"
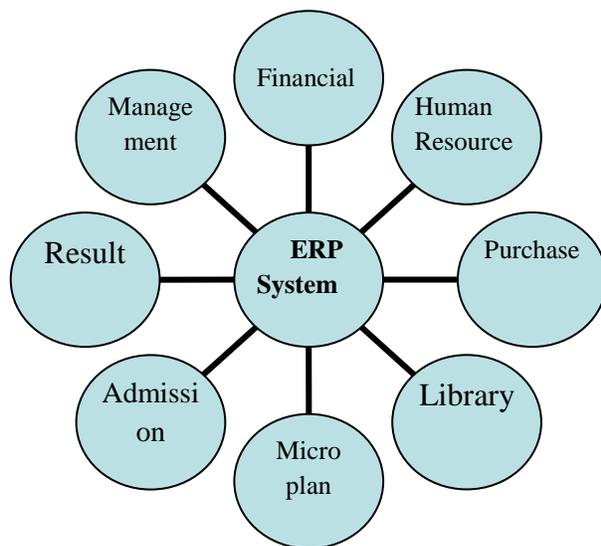
Marianne Bradford

Characteristics of ERP system: ERP (Enterprise Resource Planning) systems typically include the following characteristics:

- An integrated system that operates in (or near) real time without relying on periodic updates
- A common database that supports all applications
- A consistent look and feel across modules
- Increased self esteem and confidence
- Enhanced questioning skills
- Promoting initiative & independent learning

- Improving presentation
- Experimental learning
- Greater interaction
- Authentic materials
- Improving social & communication skills
- Developing social & communication skills
- Global understanding
- Effective work with less efforts

Functional areas/ Scope of ERP

In higher education sector system covers the following common areas of ERP which make the processes smooth & transparent.

- Financial accounting- billing, time and expense, performance units
- Management accounting
- Human resources
- Order Processing:
- purchasing,

- Library
- Salary, leave
- Micro planning/daily log book
- Admission, Attendance, Result
- Claim processing, warehousing (receiving, picking and packing).
- Activity Planning

Modules of ERP for Higher Education Sector:

- **Student Life Cycle Management:** Student life-cycle management module enables to take full account of available resources and help to understand the need of the students and respond accordingly. Academic work completed by the students can be entered through (a) Curriculum Management; (b) Grading and Advising; and (c) Progression of the students.

- **Admission Module:** The college ERP admission module is meant to conveniently and easily run the admission procedures of new students. Enquiry forms can be filled in ERP. Through the ERP admission module admission status of students can be observed (whether the enquiry turn into admission or not)

- **Fee Management:** It is a groundbreaking module for fee management through completely secured gateways to pay fees without any problem.

- **HR and Payroll:** The HR and payroll module helps to collect the employee data from the biometric system or from the entered records. This module is helpful to HR from many angles such as faculty information, salary, up gradation etc.

- **Attendance Management & Academic Monitoring:** For this module many educational institutes developed a mobile app, through that it become easy to take & to maintain attendance record. The attendance management and academic monitoring module of a college ERP system handle the attendance requirement of institutes and all the related reports can be generated quickly to make the decision-making process faster.

- **Student Activity Management:** The Student activity management module conveys operational and strategic goals for the student activity. Its totally based on academic calendar & supports the operation of college's extracurricular activities.
- **Library Management:** Library management module helps book searching, managing members, issuing books and circulating book.

Need of ERP System In Higher Education Sector: Responsibilities of today's teacher are totally changed. He not only teaches in the class room but also handle so many things at a time. He needs to update his knowledge as students are smarter than him. With this he needs to maintain discipline in the class as well as in college campus. He needs to keep records of all the things. In such case ERP software integrates solutions and data into one system with a common interface, making it easier for business units to communicate and do their jobs effectively. With the help of ERP we can save our time & can make decisions faster with fewer errors. Our data becomes visible across the organization. Data/ information can flow between systems. It develops transparency in work. ERP systems include advanced, intelligent capabilities, like machine learning and predictive analytics, which make it easier to identify and capitalise on profitable new ventures. To bring oneness & increase productivity is the main success of ERP.

Implementation of ERP software can improve productivity, increase efficiencies, decrease costs & streamline processes. ERP implementation is broken up into three phases: discovery, implementation, and results. In the initial phase, we install the software, build a prototype, and train our staff. Then we test the ERP system, create reporting templates, and run more targeted training sessions. Finally, we finalize the model of our ERP system, conduct readiness assessments, & smoothly run. During the implementation process, clients are also able to take part in a training process which provides them with the tools and knowledge to user their software correctly.

Benefits of ERP System:

Enhanced Security

The major concern for all the people in the world from different industries including education, intelligence, medical, financial, etc… revolves around security of information. The integration of internet with software's poses a risk to the data held by organizations, but the continual improvement has been seen on accounts of security embedded in the ERP systems so that the users can be sure their information stays secure. Data or information stored on web servers are far more secure than those stored physically in shelves. Storing information and data stored by ERP software in servers have backup systems and thus, your information is preserved! Is it possible with physical storing of data and files? he major concern for all the people in the world from different industries including education, intelligence, medical, financial, etc… revolves around security of information. The integration of internet with software's poses a risk to the data held by organizations, but the continual improvement has been seen on accounts of security embedded in the ERP systems so that the users can be sure their information stays secure.

Cost-Effective: The most prominent advantage of using ERP in education is the costing factor. Saving on the number of man-hours let you save so much on finance. Basic campus management requires a lot of manpower to manage things like fee collection, the grueling admission process, etc. When this management is done online, a lot is saved in the finance sector which can be used for other useful purposes.

More Automated Administration: The entire administration which was otherwise managed using huge manpower, involving all possible flaws that are not tracked easily and managed. With education ERP, the point of flaws in managing important administration processes like fee collection, library books, admission list, etc is nearly minimal, unless there are some human errors in filling up information or technical glitches. ERP systems for higher education develop in the direction of support for key administrative and academic services. The core of such a system usually supports minimal student administration (enrolment procedures and student enrolment, financial support for students, student data), human resource management (monitoring of employees) and finance (accounting, payments, investments, budget).

Boosts Efficiencies by Automating Data Collection: Streamline and automate your core business processes to help everyone in your organisation do more with fewer resources. When most of the time is saved from taking one-to-one attendance in class or filling up the mark sheet after every exam, a lot of time is saved to be invested in what is more important.

Helps Lower Risk by Enabling Better Compliance: Maximize business visibility and control, ensure compliance with regulatory requirements – and predict and prevent risk. ERP offers benefits, most of which come from information sharing and standardization. Because ERP components can share data more easily than disparate systems, they can make cross-departmental business processes easier to manage on a daily basis. They can also enable better insights from data, especially with the newer technologies that many ERP systems are including, such as powerful analytics, machine learning and industrial capabilities. Offers better compliance and data security, along with improved data, backup and the ability to control user rights.

Better Organization of Data: Organize your data the way you want. Education ERP gives you a lot of ways to organize data of your institution that would help in proper management of it. Data is managed well and available with a single click of a mouse.

More Focus on Education: When most of the time is saved from taking one-to-one attendance in class or filling up the mark sheet after every exam, a lot of time is saved to be invested in what is more important- teaching.

Limitations of ERP system: Of course, every coin has another side too. There are some limitations that prevent institutions to choose education ERP solutions for better management. Some of them as follow,

High Cost: The cost of ERP, it's planning and implementation, customization, configuration, etc might be too much for lesser profit-driven colleges. The expenses and risks involved in implementing educational organizations are very high, whereas the return on investments is medium to long-term. High ERP switching costs can increase the ERP vendor's negotiating power, which can increase support, maintenance, and upgrade expenses.

Lack of Trained Faculty: It was also investigated that which factors are important when implementing ERP in higher education and which factors lead to success or failure. As for instance, the staff training is very important process when implementing ERP in higher education. Most ERPs are difficult to learn and use. It requires thorough user training & the complete participation of users.

Can Be Difficult To Implement: Harmonization of ERP systems can be a mammoth task (especially for big institute) & it requires a lot of time, planning, and money so, it's become difficult to implement it.

Conclusion: ERP system is considered as the largest software applications adopted by the educational organizations. The impacts of ERP system on performance in higher education were also analyzed. The study concluded that ERP potentially improves business performance in higher education by enhancing services offered to students, faculty and staff. Demonstrating the benefits and impacts of ERP is becoming unavoidable from both academic and practical perspectives. The main objective of present paper is to analyze what role the ERP system plays in educational organizations and how it is helpful for them?

Research about ERP system in higher education is still at the infancy stage. Existing research has neglected the higher education sector, even though most universities have implemented or are in the process of implementing an ERP system. However, less research activities have been done regarding the ERP systems . An increasing number of higher education institutions have introduced ERP systems in order to improve their operations and make them manageable and more transparent. ERP vendors are also aware of this fact, that's why they have already expanded their solutions in order to satisfy the needs of higher education institutions.

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