ERP Systems and Their Importance for Implementation at Educational Institutions

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Abstract— ERP systems away from the manufacturing sector are entering rapidly into universities, colleges, and Schools. ERP now is experiencing the transformation that will make it highly integrated, more intelligent, collaborative, and web-enabled. Reasons for choosing ERP for education are accessing information from paper files is a difficult task, lack of means to access old records, wastage of hundreds of hours by staff each month manually entering information or performing tasks that could be handled automatically like evaluation & generating results.

This paper identifies opportunities for incorporating the Enterprise resource planning (ERP) body of knowledge into an information system (IS) program. The best Education ERP you need for totally automating & digitalizing the entire campus. ERP is easiest to use, and fastest to implement with the best results. Education ERP has a product that makes the complete digital E-Education System.

KEYWORDS: ERP System, Education ERP, Higher Education, School, Features of ERP Implementation.

I.   Introduction

ERP stands for Enterprise Resource Planning. ERP software is business-performance software that helps the business in streamlining all operations and activities. Education institutions are involved in dealing with a multitude of data and information. Processing and storing such a large amount of data & information in the form of records, and maintaining the date and

time of processed information is a tedious task. Moreover, education institutes also need to manage exams, admission, accounts, web portals, procurement of school goods, and staff which requires attention to detail. This is the reason a perfect digital solution is extremely necessary for education institutes.

ERP software is the perfect digital solution for education institutes. Managing staff, exam information, fees accounts, web portals, management information system (MIS), and library books becomes an easy task. ERP software gives complete control over all the activities in educational institutes. ERP software interconnects all the departments in the school including academics, finance, administrative, infrastructure, and communication. This makes the exchange of information among the departments easy and ensures that all information is stored in the cloud server for access at any instance.

ERP software is an integrated software solution for all educational institutes that require heavy processing of information and data. ERP software gives the institute absolute control over all the processes and activities to eliminate all the challenges that occur during operations. Automation in ERP software helps the educational institute to completely automate most of the processes. Automation updates necessary information in the accounts or records so that delays occur due to human intervention. ERP software is a one-stop solution for all educational institutes.

What is Education ERP

Education ERP Software is web-based integrated software for educational institutions: schools and colleges.

Facilitates automation of all key processes of an institute and forms the backbone of a comprehensive Management Information System (MIS).

Encompasses and seamlessly integrates all key processes (academic, financial, administrative & infrastructure, communication) of an education institute.

Addresses the information and data processing needs of all the stakeholders and end-users of an institute –viz. students, teachers, parents, support staff, and management.

Enables timely and creative analysis of data and information to facilitate effective decision making

The goal of a student information system is to help schools plan how to use their resources and manage processes effectively and efficiently. By automating processes and back-office functions that slow people down, schools start running smoothly—a.k.a. your business becomes more profitable.

The ERP system is the heartbeat of a cloud-based school. Manage your information with ease and all under one umbrella.

Benefits from a school ERP system

The short answer is everybody is involved in the school environment when you have an ERP system that sits at the top of the tree.

Because it's a complete all-in-one solution, it integrates all of the processes needed to run an institute with a single system. It handles everything from course scheduling, timetables, materials, alerts, communication, payment information, invoicing, and a lot more. Let's have a look at who reaps the benefits of a school ERP software and how:

1. Students - Students learn better when they're in a consistent, predictable, and well-organized environment. An ERP system can strengthen a school's relationship with its students, creating a learning environment where they can thrive.

Using the ERP system, students can: Reach out to their teachers and peers when they have doubts and queries Easily view their timetable Check out lesson notes, and download course material Plus, teachers can use ERP systems to praise positive behavior and suggest to students where they need to improve. By efficiently tracking students' results, schools are setting them up for success.

2. Parents - In this day and age, tech helps to ensure seamless cooperation between a school and parents. ERPs usually have a dedicated parent portal where they provide transparent and structured information on every student. You can also use them to keep families updated by sending out regular, automated emails and notifications.

Thanks to it, parents can: Get an accurate view of how their kids are performing in class

Use the system to manage online payments, check out invoices, and stay up to date with due fees

Check real-time tracking of children's transport

3. Teachers - Teachers have a lot on their plates, and manual work takes a lot of time, energy, and resources. No wonder stress gets to them and they experience burnout. A robust ERP software helps teachers streamline school-related processes. They can use the automated features to update students and course materials, making the learning process more comfortable.

Thanks to it, teachers can: Easily monitor, manage and assess student performance and behavior in the classroom Update lesson records in real-time, ensure nobody misses out on tasks and assignments

Better connect with students and parents

Focus more on teaching

4. Admin and Management Staff

Schools deal with many challenges on a daily basis when it comes to administration. ERP reduces the burden on administrative departments that are overwhelmed by dull, time-consuming processes. Simply put, it's the best solution to increase efficiency and deliver timely services to the school.

Thanks to it, the staff can:

Automate repetitive processes and execute them without error

Free up their time and prioritize projects

Features of ERP System

1. Seamless Communication with In-App Chat

This feature makes communication among different stakeholders easy and effective. It is equipped with an automatic alert system so that schools can conveniently send text messages, emails, and notifications about school closing, reminders, and emergency messages, saving them both time and money. The in-app chat feature allows easy communication between the staff members as well as between parents and teachers.

2. End-to-End Front Office Management

Be it staff calendar, security validation via OTP, biometric identity tag generation, or generating pickup pass for a child, ERP streamlines front-office operations and ensures thorough visitor management.

3. Efficient Inventory Management

The inventory module simplifies the workflow by helping school administrators to keep a track of all stationery, sports supplies, and more. With this module, the whole process of purchase, sale, issue, etc. becomes streamlined and schools get a fair understanding of the amount of stock and the transactions properly. Also, it helps in accelerating the process of issuing transfer certificates and other important letters to staff and students.

4. Advanced Library Management

The module ensures a quick issue and return policy with the help of a smart barcode reader and helps librarians and students to search for the desired book and reserve it if needed. This automatic process keeps the whole procedure free from manual errors. Also, the library module provides a customized membership policy that enables staff and students to avail different memberships as per their individual requirements.

5. Simplified Payroll

This feature offers a smart payroll module that saves time for the school administration by automating calculations and reducing paperwork. It helps school administration in managing the salaries of all staff members, and their applicable allowances or deductions parallelly. The solution keeps track of fee payments, and salary increments and provides real-time financial information.

6. Instant Transport Tracking

This module offers a government-compliant student security transport management system. It is integrated with a GPS tracker, helping parents and school management with real-time information about students' journeys along with driver details and numerous statistics pertaining to different stops, speed of the particular vehicle, etc. This facility helps parents to stay free from tension even if their children are traveling

7. Hassle-free Admissions Process

The admission module is designed to help schools manage their end-to-end admission process with ease. From form filling, online prospectus, and student application screening process to admissions and fee collection, Next Learning Platform digitizes all processes and streamlines the admission process. This helps schools to set up an entirely paperless admission process.

8. Organised Leave Management

Leave module simplifies and expedites the leave applications and approval process. With the help of this module, each school can have a unique leave policy that can be customized based on department, role, and other parameters.

9. Comprehensive Student Profile

This module helps schools simplify their student data management. A consolidated report of each student's profile containing student's personal and academic reports, assessment reports, school leaving certificates, mark sheets, etc. are safely stored in the Amazon AWS cloud server and are available with just a click of a button.

10. Transparent Staff Management

This module helps schools simplify their staff data management. By creating staff ID cards and maintaining a detailed staff database- personal information, education background, previous employment history, etc., the Next Learning Platform solution helps to maintain transparency in the HR process. It provides a role-based dashboard to the school stakeholders that enables them to visit different links as per their requirements.

11. Advance Fee Management & Online Payment

Fee management gets simplified with a secure payment gateway and all the transaction details can be easily viewed. It keeps parents informed about the fee payment through reminders and helps them to pay the fee online and get instant fee receipts via email and app. It ensures a high-quality user experience through easy-to-use functionalities, tracking mechanisms, and help options.

12. Streamlined Examination and Report Generation

Any type of examination structure, including the number of terms and assessments for each class, can be easily designed using the Next Learning Platform. The solution helps schools create personalized report cards for each student. To keep the parents aware of their ward's academic performances, notifications are sent on a regular basis.

13. Real-time Attendance Management

This module is tailored with an automatic face recognition system, RFID readers, and a biometric system that registers the attendance of teachers, school officials, and students. Furthermore, the module facilitates period-wise attendance that records attendance multiple times in a day.

THE IMPORTANCE OF THE ERP SYSTEM FOR SCHOOLS IN MODERN EDUCATION
Education facilities collect tons of information on your students, graduates, professors, staff, courses, fees, assets, coursing schedules, etc.; education facilities collect these. This information is almost hard to use without the proper ERP system in school. The program will help you to analyze the data gathered and make decisions based on facts.
Institutes that already have ERP deployed have seen increased workflow efficiency and greater data management, which have been demonstrated to be an instrument of higher productivity in all campus activities.

WHAT IS THE ROLE PLAYED BY THE SCHOOL ERP SYSTEMS?
1. Integrate all functions of the school. It keeps, monitors, and delivers information such as registration, financing, and human resources in real-time.
2. Facilitate the flow of information inside a school.
3. Follow up every institutional action that helps enhance the present system and facilitates future goals.
4. Improve and organize instructors, students, and employees' portfolios.
5. The procedure of managing students is simplified.
6. Keep excellent ties with parents and stakeholders.
7. Every school's communication is organized and streamlined.

School ERP connects parents, faculty, managers, and students on a single platform. ERP for the school business resource management is a suite of applications created specifically to effectively manage all of the school's administrative responsibilities.

In education institutions, infinite information from many procedures needs to be collected and properly stored every year. ERP software enables you to record and handle this data efficiently in real-time. It sets out:

STREAMLINE PROGRAM TO MANAGE ALL DATA
The ERP combines the whole campus into one platform. The system can collect, store and analyze data accessible, including entry forms, student information, faculty details, exam records, fee payments, and more. It digitizes and makes these documents available to multiple departments, making the administration and information management processes more effective.

An ERP system makes it easy to share information amongst managers, workers, instructors, and students. This covers the communication gap between them, allows them to remain engaged, and stays up to date on all events on campus. This administrative clarity promotes confidence in the institute's parents and pupils.

DATA SECURITY AND SAFETY
It's no shock that you need a long length of time to keep a large amount of academic material. You have to retain student information after registration, during the courses, and after the academic term, apart from preserving records of current operational data.

It is never secure to manage the physical data. You need ERP software, which can store the data safely and retrieve it if necessary. The system also provides restricted access to information and only enables authorized users to maintain intact data integrity and privacy. This guarantees maximum safety against data infringements.

RESOURCE MANAGEMENT ENHANCED
In school, college, and elsewhere, the general objective of resource management is to guarantee that it can distribute resources efficiently. Given the diversity of the resources employed, manual management is especially hard. Therefore, you need very effective ERP software to manage inventory and resource use in your organization to solve this properly.

With the ERP program, you record the available and necessary stock in real-time and report on present and future demands reliably and accurately. This allows you to forecast and improve the requirement, preventing you from exaggerating or detecting threats.

DIGITAL MIGRATION CUTS DOWN OPERATION
The future of all industries is digital change, and education is no exception. It is expanding the Internet in this sector, altering how these companies conduct their operations by increasingly educational institutions using state-of-the-art technology.

Digital transformation is feasible with educational ERP software. It allows you to automate management procedures in your institution fully. The system covers everything from registration to fee administration, through completing courses to the alumni record. It streamlines long and complicated procedures and makes them easy to plan and execute.

REDUCES WORK WITH COST EFFICIENCY

Your school has to deal with various processes daily. When managed manually, it takes time and frequently is prone to errors, reducing the productivity of the activities of your institute.

To link all the organizational operations, the ERP system translates several different systems into a user-pleasant platform. The resulting data may be collected rapidly and readily shared throughout the departments. Analysis of these facts can allow you to decide better.

ERP software reduces human interference by automating your institution's procedures. That saves hours of labor, eliminates errors, accelerates all processes, and increases the efficiency of workflows, therefore eventually decreasing operating expenses.

II.   Conclusion

In recent years, with the pace of technological development, people have become more and more demanding in terms of quality of life, and the school's managers in recent years look to improve a performance in their schools to get the highest rate of knowledge and experience in their students.

ERP can be used by educational institutions to maintain their student records easily. Achieving this objective is difficult using the manual system as the information is scattered, can be redundant, and collecting relevant information may be very time-consuming. All these problems are solved by the above solution.

This system helps in maintaining the information of pupils of the organization. It can be easily accessed by the manager and kept safe for a long period of time without any changes.

The effective utilization of work, by the proper sharing and by providing the accurate results. The storage facility will ease of the operator. Thus the system developed will be helpful to the administrator by the easing his/her tasks. The benefits of a properly to selected and implemented enterprise resource planning (ERP) system can be significant. The future of successful enterprise resource planning(ERP) implementation does not rely on the further improvements of technology, but on bringing people and business up to the speed on the appropriate use of enterprise resource planning(ERP) technology to fit their defined business needs and objectives.

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