

## **A STUDY OF ERP IMPLEMENTATION IN HIGHER EDUCATIONAL INSTITUTION**

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### **ABSTRACT**

The aim of this study was to develop comprehensive solutions for long-term ERP implementation in Indian higher education institutions. The aim of this study is to determine the effect and impact of attitudinal and behavioral factors on enterprise resource planning acceptance in higher education institutions. It used an exploratory approach and provides detailed information on the analytical instruments used in the analysis. For the purpose of data collection, the researcher used a purposive Judgmental sampling process. The sampling method concentrates on the units that are being investigated based on the researcher's assessment. Data was collected using the survey form, which included a standardized questionnaire. The researcher used a combination of qualitative and quantitative analysis methods. Few factors such as marital status and wages, according to the report, had no impact on the research. These variables may or may not have an effect on user adoption of ERP implementation in higher education.

The success expectancy is greatly influenced by organizational implementation as a construct. The findings show that automating processes in higher education will help the institution with administrative and academic tasks. The study's respondents also believe that automation can help the company perform more systematic work by reducing work load.

The use of automation is greatly influenced by organizational implementation as a construct. The results show that the automation process in higher education is user-friendly, which encourages students to use it often. According to the survey respondents, automation supports will provide users and stakeholders with solutions.

The study created an ERP structure for higher education institutions to use in implementing ERP (HEI). It has established a number of factors that affect user acceptance of ERP implementation in HEI among the administration and employees. The introduction of ERP would lower administrative costs and assist the HEI in retrieving data when it is required. Vendors should accept this model for conducting a study for effective implementation, according to the study. The study's model assisted the researcher in identifying obstacles and opportunities related to user adoption of ERP implementation in higher education institutions.

**Key words: Higher Educational Institution (HEI), Implementation, Academics and Administration, Development, Enterprise, ERP Software Developer**

## **INTRODUCTION**

India is a significant player in the international education sector. Students from all over the country as well as foreign students from all over the world attend the schools, colleges, and universities. According to the MHRD's annual report (2015), "good quality education is the cornerstone of new discoveries, new knowledge, creativity, and entrepreneurship that cause individual and national growth and prosperity." The statement shows that India's demand for higher education growth can be met, strengthened, and sustained by the use of technology.

In recent years, India's higher education has entered a new age known as automation. Initially, the automation process took place in corporations and sectors. The role of the automation process has grown as a result of its ability to handle finance and development in businesses. The use of technology in academia is not new; however, incorporating all of the departments involved in the education domain has become increasingly necessary for an institution's success.

In the education sector, ERP implementation will benefit both academics and administration. After the industrial revolution, the word "automation" was coined to describe mechanization. Automation is perceived as a single process that can be scaled up quickly by combining processes. The term "automation" refers to the use of a combination of mechanisms and humans to organize or regulate the use of production resources.

Automation is the process of optimizing one's business and activities in the manufacturing industry in order to maximize production.

Automation is a mechanism that involves automated machines that can perform actions and make decisions without the need for human interference. The word refers to a self-contained computer, instrument, or unit. Automation infrastructure, automated installation, and automation system are not included in the definition.

### **OVERVIEW OF ERP**

A training and development department exists in an enterprise to train business processes for the smooth operation of sales, distribution, and finance, accounting, production, and human resource management. Certain business processes are available to assist vendors and customers. It is also stated that when information technology is required to operate a company, internal processes are defined and implemented using ERP. Supply chain management (SCM) is used by several companies to handle their suppliers. Extended ERP refers to the combination of ERP, SCM, and CRM.

### **PROBLEMS FACED IN USER ACCEPTANCE OF ERP IMPLEMENTATION IN HIGHER EDUCATION INSTITUTIONS**

Small and medium businesses have a high demand for an integrated framework. There are many items on the market, such as Baan, SAP, and others. For product designers, the most difficult tasks are to introduce and educate staff on how to use any automation device. Occasionally, businesses can also offer the option of outsourcing ERP software. Since the whole package of ERP software may not be useful for a company to introduce, software companies have advanced and updated the components to meet the needs of their customers.

This has boosted ERP designers' profits and paved the way for emerging technologies to take off in the global market. At the same time, ERP designers (vendors) have a full kit as a solution for ERP deployment to large businesses.

ERP deployment has a major impact on an organization's operations. It is essential to control ERP implementation in order to reap the benefits. There have been several

instances where implementations have failed due to poor ERP collection and assessment procedures. The legislative climate is not a function of the ERP scheme. In certain cases, the ERP chosen would not work in a higher education environment. One of the most important factors influencing ERP implementation performance is business process reengineering. The technical team is finding it challenging to cooperate and work on BPR. The inefficiency of BPR's management could lead to problems with system configuration. End-user preparation is widely acknowledged as a critical component of ERP implementation. End-user training programs can help to reduce the system's complexity. End-user education seems to have a positive impact on production and improve user satisfaction.

The implementation of ERP in higher education has resulted in increased revenue in the software development industry. The ERP system used by higher education institutions was built for business purposes, according to the researcher. According to the report, the higher education sector should establish its own ERP. Higher education ERP module, according to the researcher, will boost academic functionality.

## **MOTIVATION**

The research scholar works in the higher education sector as a real-time ERP software developer. This piqued the researcher's interest in learning more about the complexities of ERP user acceptance. The researcher is interested in determining the factors that affect the application of enterprise resource planning and its adoption in any higher educational institution.

The researcher hypothesizes that this study would build a landscape for effective ERP implementation and acceptance in higher education. The researcher's comprehensive reading in ERP management has paved the way for him to learn more and provide a solution for ERP consumers, consultants, and higher education institutions.

## **RESEARCH METHODOLOGY**

### **Research Design**

The effect of user adoption of ERP implementation in higher education institutions is investigated in this report. It looked at eight different structures as well as the demographics of the respondents. Statistical applications such as correlation, anova, factor analysis, regression equation, post hoc evaluation, SEM Analysis, and AMOS CFA were used to investigate these constructs.

#### **Primary data**

An in-depth interview with experts was performed, which aided in the creation of the questionnaire for primary data collection.

A standardized questionnaire was used to obtain primary data from the employees. It used the dimensions from the UTAUT model (Unified Theory of Acceptance and Use of Technology). The primary data included personal information such as age, monthly income, job status, educational qualifications, and years of experience, among other things.

#### **Secondary data**

Secondary sources knowledge was taken from reputable academic journals, newspapers, and books published by authors in India and abroad to gain a better understanding of theories on enterprise resource planning related issues in higher education.

#### **Sampling design**

The study's sample design is determined by the nature of the analysis. This is created before any data is gathered. For the purpose of data collection, the researcher used a purposive Judgmental sampling process.

Purposive sampling, also known as judgmental sampling, allows for arbitrary respondent size collection. This sampling method focuses on the units that are being investigated based on the researcher's decision.

## **RESEARCH QUESTIONS AND ANSWER**

- **Research Question (RQ) 1:** What are the variables that affect an organization's ERP implementation?
- **Research Question (RQ) 2:** Do demographic factors have an effect on ERP consumer acceptance?
- **Research Question (RQ) 3:** Does the Unified Theory of Acceptance and Use of Technology (UTAUT) model's additional construct "organization implementation" help user acceptance of ERP implementation in higher educational institutions?
- **Research Question (RQ) 4:** Does the ERP implementation process have a major impact on higher education and society?

## **RESULTS AND DISCUSSION**

### **Percentage Analysis of Demographic and Professional variables**

The higher percentage of respondents from deemed universities indicate that private institutions value ERP implementation in the higher education sector. According to a percentage study of age, 64.4 percent of workers are under 40 years old, 22.7 percent are between 41 and 50 years old, and 12.9 percent are over 50 years old. The majority of ERP users in this sample are under the age of 40. Employees can quickly embrace and learn ERP packages with limited training programs, according to the report, which may be due to their technical journey. This category can be classified as computer and mobile generation respondents. The sample population shows that male workers outnumber female employees. As a result, even part-time workers have the opportunity to upgrade their academic functionalities in ERP. There are workers with a combined career experience of more than 12 years. Since they may be from the radio age, these respondents may need additional ERP implementation training in higher education.

### **Analysis of ONEWAY ANOVA, F-Test and T-Test**

Users have been classified into various groups for user acceptance of ERP implementation in higher educational institutions based on their mean ratings. Employees at state universities and deemed universities are found to be substantially different, according to

the report. As opposed to respondents from considered universities, state university workers have a higher perception score (97.25). (82.67). There is a substantial relationship between age and user adoption of ERP implementation in higher educational institutions. As people get older, their willingness to use ERP increases positively until they are 50 years old, but it declines after that the findings indicate that both men and women have a positive outlook about their perceptions, and that they are dramatically different. Female respondents have higher mean scores than male respondents. The cross-sectional findings of working status and constructs reveal that respondents' views vary significantly. Employees with more than 3 years of experience have a better understanding of the ERP used in higher education institutions, whereas those with more than 12 years of experience have a lack of understanding of the ERP system and procedures used in institutions.

Employees' functional departments had major differences in their views of ERP implementation in higher educational institutions, according to an F-test.

- According to the findings, user acceptance of ERP implementation in higher educational institutions varies depending on the age of the institution. According to the findings, there is an important relationship between the age of the institution and user acceptance of ERP implementation in higher education institutions.
- The findings show that there are high levels of annual income expectations and user acceptance of ERP implementation in higher education institutions. The mean value indicates that respondents with annual salaries of more than three lakhs have positive attitudes toward ERP implementation in higher education institutions. There is no substantial difference between annual income expectations and user acceptance of ERP implementation in higher educational institutions, according to an F-test.
- The findings show that demographic variables have a strong relationship with user acceptance of ERP implementation in higher education institutions.

## **RESEARCH QUESTIONS AND ANSWER**

### **1. Research Question (RQ) 1: What are the variables that affect an organization's ERP implementation?**

The current research examines the state of automation in the higher education field. The findings indicate that only a few companies are convinced of the value of automation, while others are in the process of introducing automation. The organizational implementation frameworks summarize user output and challenges, which the company considers on a regular basis. In order to improve the higher educational sector, organizations with ERP solutions should consider new updates and training for end users, according to the report.

The success expectancy is greatly influenced by organizational implementation as a construct. The findings show that automating processes in higher education will help the institution with administrative and academic tasks. The automation support, according to the study's respondents, also helped the organization perform systematic work by reducing work load.

Organizational implementation is used as a moderator, and as a construct, it has a big impact on how people use automation. The results show that the automation process in higher education is user-friendly, which encourages students to use it often. According to the survey respondents, automation supports will provide users and stakeholders with solutions.

### **2. Research Question (RQ) 2: Do demographic factors have an effect on ERP consumer acceptance?**

The demographic variables of respondents' age, gender, experience, income, marital status, and education affected ERP users in higher education, according to the empirical analysis. Age, gender, experience, and education, however, were found to be significant variables. The results show that respondents of all ages in the study are very cooperative in the introduction of automation in higher education. This demonstrates that the respondents' age group is enthusiastic about learning new updates and putting the ERP system in place in



the higher education sector. The findings demonstrate that gender is not a barrier to automation consumer acceptance. Respondents are able to understand the mechanism and navigation involved in ERP solutions, according to the results of their work experience. According to the findings, respondents with more than 12 years of experience paid less attention, which may be attributed to their experience with ERP solutions in higher education. According to the findings, educational qualifications are critical for using automation in the higher education sector.

The acceptance of technology was not influenced by factors such as marital status or income, according to the report.

**3. Research Question (RQ) 3: Does the Unified Theory of Acceptance and Use of Technology (UTAUT) model's additional construct "organization implementation" help user acceptance of ERP implementation in higher educational institutions?**

The study is designed by combining the UTAUT model with a new construct called organization implementation. Cronbach alpha is used to evaluate the study's framework. For each build, there are five statements. These constructs have been evaluated using a statistical method, and the cronbach alpha result is satisfactory.

**4. Research Question (RQ) 4: Does the ERP implementation process have a major impact on higher education and society?**

According to the findings, the automation process at higher educational institutions aids in the maintenance of student and employee data. This information is held from the first day of enrollment to the last day of attendance at the institution. According to the respondents, automation in the education sector aids in completing tasks more quickly and with less error.

The introduction of automation necessitates a simple understanding of machine operation, and since the automation is being applied in the education field, the user will be able to learn and complete the task as quickly as possible. To improve the quality of the work community, the organization motivates ERP users in both academic and non-academic work.

Administrative employees face a difficult task in obtaining necessary details. The automation method, on the other hand, aids in the delivery of data with safe access. According to the findings, a mobile app is needed in the current environment, which has been allowed by user acceptance of ERP implementation in higher education institutions.

In today's dynamic environment, it's important to keep track of students' and employees' progress. Participants are satisfied with the automation process on both personal and public computers, according to the findings. According to the report, ERP implementation decreases human involvement and eliminates the traditional process approach in the higher education sector.

## **IMPLICATIONS**

### **Implications for Higher Educational Institution**

The current study provides evidence that ERP implementation in higher education institutions can be made more user-friendly. This demonstrates that higher education institutions can use the ERP system. The implementation can make it easier for the institution's administration to retrieve data from any location and at any time. A successful ERP implementation often provides a democratic environment for users such as professors, students, employees, and management.

Since workers at higher education institutions are accustomed to using computers, implementing ERP in this sector may not be a challenging task for management.

For organizations to develop strong skills, improve organizational efficiency, improve business decision making, and thrive in a global business environment, an Enterprise Resource Planning (ERP) framework has become increasingly relevant. In other words, an ERP framework unifies a company's resources while simultaneously incorporating business procedures and organizational changes. ERP framework deployment has increased dramatically as a result of the widespread increase in IT expenditure. Higher education institutions (HEIs) have recently begun to implement ERP schemes.

## **Implications for Information Technology industry**

Employees are more attentive and take responsibility for their work in an autonomous working environment. As a result, ERP implementation in the higher education sector can be seen as a substitute for traditional systems. According to the report, age and education are not barriers, but participants are expected to receive training on automation updates.

## **CONCLUSION**

A model for implementing ERP in higher education institutions was created as part of the research (HEI). It has established a number of factors that affect user acceptance of ERP implementation in HEI among the administration and employees. The introduction of ERP would lower administrative costs and assist the HEI in retrieving data when it is required.

Vendors may use this model to administer an effective ERP implementation, according to the findings of the report. The study's model assisted the researcher in identifying obstacles and opportunities related to user adoption of ERP implementation in higher education institutions.

The same research may be conducted in the business sector to determine the importance of ERP implementation in higher education institutions.

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