

“Consequence of Enterprise Resource Planning in the Environs of Pedagogical Organization”

¹Dr. Mallikarjuna B E, ²Vineeth R

¹Professor, ²Student

^{1,2}, Department of Mechanical Engineering

^{1,2} DTE, Karnataka, India

Email: replygps@gmail.com.

ORCID  : ¹<https://orcid.org/0000-0003-4805-5716>

ABSTRACT

The application of Enterprise Resource Planning in the prefecture of academic institution, in which it integrated all the academic functions in an individual platform, it was eradicated the external and internal loses, which are by and large being associated with students, faculties, principal and supporting staff of an institution. Here an attempt to install educational SAP software, which integrates and provides the common platform for all the members across the institution. And the principal accesses all the data which is being come out by different departments in respect of student punctuality, absenteeism of the student, faculty's regularity and irregularity to the college and many more. In this work ERP software played an imperative role to enable the academic functions more effectively and efficiently.

Keywords: Enterprise Resource Planning, SAP, Institutional ERP

I. INTRODUCTION

On the prospects of growing community demands, one can have a proficiency to acquire major results by redecorating the existing system in a systematic manner. During eighteenth and nineteenth century there was an industrial era took place, in which number of industrialists and scientists were proposed several management theories to frame the existing system in an advanced manner to eradicate the

problems which are customarily being associated with industrial and non-industrial activities. So, it is meant to say that, the anticipation of advancement in any system whether it is manufacturing environment or non-manufacturing environment could be possible when we make use of real time existing resources like man, machines, materials, money and method. So, the availability of these real time resources enables the manufacturing process very smoothly and efficiently. However, as far as manufacturing industry knowledge concerned, manufacturing is a predetermined activity where it encompasses various firm sub resources namely procurement of materials, inventory process, human resource availability, inspection of incoming materials, distribution, supply chain, customer relationship process and many more. So, regulating the activities of each department is somewhat difficult for gathering the information or departmental data. Presently, all most all the manufacturing firms have espoused integrated software called SAP to enable the manufacturing operations very efficiently and effectively. The integrated software means it assimilates the information and data of each department to enable the manufacturing process and reducing the production time by gathering the information about availability of human resources, availability of materials in the ware house, finding out of defects in finished and unfinished materials and many more. So, in this probe, as like industrial firms the enterprise resource planning software plays an imperative role to maintain smoothness and keep the records of pupils, faculties, account audits decorously in the prefecture of academic area. However, till now the industrialists believed that enterprise resource planning would be applicable to manufacturing industries. Being an engineer if enterprise resource planning is applied to an academic institution, it would be a great profitable thing, in which eradication of examination delay, direct and indirect loses of academic activity could be taken place. To enhance the productivity of any system, it is needed to utilize all the resources effectively. The application of enterprise resource planning in an academic level is a challenging chore for every employer to manage all the departmental activities without making any defect in their academic system. The impact of enterprise resource planning in an academic level would be more effective than the industrial firm. The enterprise resource planning software manages all the activities like recording the student data, regularity or irregularity of faculties or teachers, examination management system, in time delivery of question papers and answer booklets, academic attendance of pupils and circulation of pupil's marks card to their home and many more. In this survey we have assembled the academic information, later we have applied over the academic institution and the results have depicted in the impending part of this paper.



II. ERP PROCEDURE

As we aware of that, managing all the activities which are generally being encountered in an academic institution level, which amounts the assortment of anxiety over the management people. So, after come across these prospects being a management person, it was an essential task to redecorate the academic system with full off automated stuff. So, in this respect, the management person was preferred a polytechnic college for his innovative work, where he was found intricacy administration work, in which the faculties, students, principal and supporting staff were failed to maintain the common platform for acquiring pertinent information from end to end. So, the management person initially, he was gathered the data in all respects of the academic institution, where he was suggested to espouse ERP process to their top management. Later they were acquired exceptional results as like industry. The meticulous domino effect was depicted as per the ERP standards.

So, after espousing ERP process, tremendous changes were taken place within the academic institution where academic delay in respect of student admission process, faculty regularity and teaching information, student records, account audit information, examination management system, students' placement information and many more,

Table 1: ERP Process over the academic institution works

Serial No.	Academic Administration work	Concerned individual	ERP Software System File Codeword	Sub-Central Station (Principal) Codeword
1	Admission Process	Office Workers	Off_Adm_ERP1_01	SCS/P.O. A/ERP_1
2	Faculty Regularity& Absenteeism	Departmental Head	DH_STH_ERP2_02	SCS/P.D.R. A/ERP_ 2
3	Student Information (Record)	Dean Head	HD_S. I_ERP3_03	SCS/P.D.S. I/ERP_3
4	Account audit	Accountant	AC_A. A_ERP4_04	SCS/P.A. A/ERP_4
5	Examination (Including Issuing Hall tickets and Report card)	Examination Management system	EMS_E.X_ERP5_05	SCS/P.E.M. S/ERP_5
6	Students Placements	Placement officer	PO_S. P_ERP6_06	SCS/P.P. O/ERP_6

fully declined. The data which were directly acquired from concerned individual was more trustworthy and more internal loses were eradicated. And the data directly went to the sub central station, where it

was accessed by the principal of that academic institution. Later the data were taken by principal he sent the same data to the top management of the institution by means of centralized integrated ERP software. The details were depicted and as shown in below table 2.

Table 2: Sending out of Institution information from Sub Station to Centralized Station

Serial No.	Sub Central Station (Through Principal) Codeword	Centralized Station (Top Management) Codeword
1	SCS/P.O. A/ERP_1	CS_P_ODAEP/ERP1212_HSKP
2	SCS/P.D.R. A/ERP_2	
3	SCS/P.D.S. I/ERP_3	
4	SCS/P.A. A/ERP_4	
5	SCS/P.E.M. S/ERP_5	
6	SCS/P.P. O/ERP_6	

III. RESULTS AND DISCUSSIONS OF INTEGRATED ERP

As we cited beforehand that, the integrated software could eradicate the paper work as well as enhance the productivity of an academic institution. And here the effect of integrated ERP software was expounded and depicted by means of graph. From Fig.1.1 the academic year 2019-21 was having greater productivity as compared to earlier one. In this respect during academic year 1997-2005 the external and internal loses were more and productivity of the institution was less and more paper work was needed. Further during academic tenure 2006-2009 the productivity of the institution was somewhat higher compared to earlier academic year.

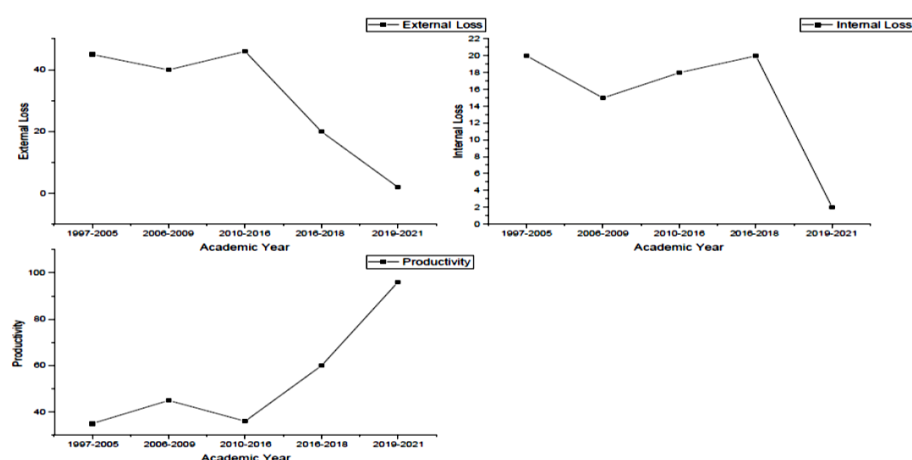


Fig.1.1: Effect of profitable ERP over academic institution

Besides, if we were a look over in the course of 2010-2016 and 2016-2018 the external and internal

losses were less in number and productivity of an institution was enhanced by adopting the enterprise resource planning software. In this regard after implementing the ERP (Educational SAP) software the academic institution productivity was fully enhanced.

CONCLUSIONS

The External and Internal losses have diminished after espousing the ERP. The productivity of an academic institution has wholly enhanced. Have maintained ethical and good relationship with Pupil parents. ERP has greatly reduced the time delays across the institution. It has enhanced the morale of the Teachers, Students, Supporting staff and Principal of the institution.

FUTURE SCOPE

The Educational ERP software can also be implemented in Various universities across the world, Government institutions, offices.

REFERENCES:

- [1] Al-Mashari, M., Mudimigh, A., Zairi, M. (2003), "Enterprise resource planning: a taxonomy of critical factors", *European Journal of Operational Research*, Vol. 146 pp.352-64.
- [2] Allen, D. and T. Kern (2001). *Enterprise Resource Planning Implementation: Stories of Power, Politics, and Resistance*. IFIP Conference Proceedings: Proceedings of the IFIP TC8/WG8.2 Working Conference on Realigning Research and Practice in Information Systems Development: The Social and Organizational Perspective Idaho. USA.
- [3] Amoako-Gyampah, K. and Salam. A (2004). An extension of the technology acceptance model in an ERP implementation environment." *Information and Management* 41(6): 731 – 745.
- [4] Arunthari, S. (2005). *Information Technology adoption by companies in Thailand: A study of Enterprise Resources planning System Usage*. Information System, Australia, University of Wollongong. Doctorate thesis.
- [5] Basoglu, N., T. Daim and Kerimoglu, O. (2007). Organizational adoption of enterprise resource planning systems: A conceptual framework." *Journal of High Technology Management Research* 18: 73-97.

- [6] Beekhuyzen, J., M. Goodwin and Nielsen, J (2001). A Snapshot of ERP Adoption in Australian Universities. Queensland, Australia, Griffith University: 1058-1062.
- [7] Barkhuizen, J., M. Goodwin and Nielsen, J (2002). ERP in Universities: The Australian explosion Australian Conference on the information systems. Melbourne, Australia
- [8] Botta-Genoulaz, V. and P. Millet (2006). "An investigation into the use of ERP systems in the service sector." International Journal of Production Economics 99(1): 202- 221.
- [9] Botta-Genoulaz, V., P. Millet and Grobot, B (2005). "A survey on the recent research literature on ERP systems." Computers in Industry 56(6): 510-522.
- [10] Calisir, F. and F. Calisir (2004). "The relation of interface usability characteristics, perceived usefulness and perceived ease of use to end -user satisfaction with enterprise resource planning systems." Computer in Human Behavior 20(505-515).
- [11] Cornford, J. and N. Pollock (2001). Customising Industry Standard Computer Systems for Universities: ERP Systems and the University as an 'Unique' Organisation Critical Management Studies. England, UMIST.
- [12] Fisher, M. D. (2006). Staff Perceptions of an Enterprise Resource Planning System Implementation: A Case Study of three Australian Universities. Queensland Central Queensland University. PhD.

