

**Title of the Article: Effective Educational Management: An Implementation Of
ICT in Administration of Higher Education Institutions**

Declaration: The article titled ‘**Effective Educational Management: An
Implementation Of ICT in Administration of Higher
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publication in any other journal or magazine.

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EFFECTIVE EDUCATIONAL MANAGEMENT: AN IMPLEMENTATION

OF ICT IN ADMINISTRATION OF HIGHER EDUCATION INSTITUTIONS

Introduction

Technology is not only a product of a given culture; it also shapes the culture that created it.

This is the age of knowledge explosion, globalization and technology. Today's students are smarter than the students ten year earlier. In the institutions teachers are selected to do teaching-learning job only, but institution's office staff and teachers as institutional managers, are spending much of their time on clerical activities, like 'updating the records', 'information recovery and document production', and 'communicating' to the higher authorities and parents. Teachers get very little time to provide quality services to the students. Their energy is wasted in doing subsidiary work. And the same case also applies to the Principals of the colleges also. He/she is not been able to provide constructive feedback to the students and teachers, and experimenting the functioning of the educational institution for betterment. Due to the rapid change in the society, it will put various demands on educational management. Now the thrust of the country with regard to education has been changed from quantity to quality and educational management can play a vital role in this regard by managing the education in the institution effectively and efficiently. Educational management has to spend more time on other work rather than only collecting and maintaining the data by involving teaching and non-teaching staff members in the institutions whether it is college or university.

To overcome these shortcomings and providing more time to the institutional personnel for doing constructive work, Information Communication Technology can be used in the form of '*Institutional Information Management System*'. Computer assisted institution information systems has been growing in many corners of the world since the mid- 1980s. It has the enormous potential for enhancing the effectiveness of college staff and improving institutional performance.

Being the largest producer of technical and professional manpower, India is an active participant in the development and use of information technologies. Information technology may be considered as a synonym for the modernization of all

organizations including educational institutions, as they provide for advance and updated technological tools and applications. This adoption of ICT reinforces the teaching process, but also facilitates administrative transactions. Despite this, the education sector is deprived of the benefits of ICTs. The analysis shows that the ICTs offer vast potential for their use in educational management. The Government of India should promote the effective and efficient use of information communication technology for the management of educational institutions in all respects.

The role of the education sector is to use these technologies for improving its managerial efficiency and effectiveness. The education sector, perhaps the most mismanaged social sector, is characterized by managerial inefficiencies of high order.

There is still a class of educational administrators practically at all levels of educational hierarchy, who have not adapted themselves to gain from the new technological revolution. They feel that their existing approach is better and more reliable than the use of modern technologies in administration.

Historically, the system of governance is based on sound record keeping so that irrespective of the executive head, the records form the basis for governance, control and decision making. Billion of pages of information are being generated each year by various departments' i.e. central education department and state governments' education departments in India. Some of this is in duplicate and triplicate form. Even then the relevant information is difficult to locate from the existing records and sharing of information between departments is not-existent. Although many secondary schools introduced computers in great numbers starting early 1990's, there is limited data on their use to facilitate college/university administration.

For educational planning central, state, university and college have to play a vital role if the country really wants to come out with the age old system made by the Britisher's for producing clerks. Central Government has to work for the effective policy directives, evaluations, collect the data for educational statistics and accordingly make support schemes. State government should execute the policy, college supervision, resource management, examinations, teachers' recruitment, supplies and equipments, training; syllabus etc. college/university administration has to see teaching learning in the college/university, college/university management, supplies and equipment at school level and school finances etc. Therefore these

Institutional Management Systems (IMS) should be electronically connected to the state level and country level networking. All the state governments should give connectivity and create their own network like *State Wide Area Network*.

Need for Information Communication Technology (ICT) in Educational Management

ICT in Educational Management is needed to create efficiency and effectiveness in the following aspects of administration:

1. ***Proper Utilization of Resources:*** If we see the current scenario it is very difficult to track the teachers as well as students movement and progress at college/university, state and central level. It is very difficult to track the assets and ultimately this is causing the impact on financial planning and budgeting and efficient tracking of available resources and its utilization.
2. ***Effective Decision Making:*** The information present in the educational institutions is in fragmented and fuzzy form. And it is generally compiled in non-standard formats. Manual handling of huge data is very difficult and causes delayed information collection and compilation. This will affect the decision making process for quality education.
3. ***Increasing Coordination:*** Because of lack of timely, structured and efficient information sharing, there is a chance of duplication of data collection and compilation. This leads to lack of coordination between departments and directorates.
4. ***Planned Management:*** The institution must hold summary of the information regarding performance of each subsystem. It needs to be made available regularly to the principal so that he/she can analyze the effectiveness of existing programmes. The principal should have the complete and accurate information to consider the likely impact of change if necessary.
5. ***Access to the Stakeholders:*** The institution must maintain data on students so that it can be easily accessible to the parents, Government, students and the institution itself.
6. ***School Improvement and Development:*** The institution must hold the

information on students' achievement so that the government or the management can monitor the performance of the institutions and intervene where progress is weak. It can also help of sharing of good practices where progress is good.

7. **Backing the student:** The institution needs to hold sufficient details on students to enable it to identify those students potentially at risk. The institution must be able to follow their progress through education and provide them special educational provisions.
8. **Quality Education:** The institution must use the information to ensure children and young people of the country have best start in life with high quality education. The Indian government is emphasizing on the universalization of education which put excessive demand for secondary education. The education department has to focus on the retention of the students and providing them quality learning by ensuring optimum utilization of resources.
9. **Reducing Workload:** Manual working leads to huge workload. Information communication technology can ensure technology enabled planning and institutional administration.

Areas of Educational Management where ICT can be Implemented for Efficient Working of Institutions

- 1 **Learner and Scholastic Management:** ICT can be used to maintain the personal record information of the students. ICT can also be useful in maintaining the record of enrolment and attendance/leave information. Fees management and examination performance and analysis can be done efficiently through ICT.
- 2 **Personnel Management:** ICT can be used to maintain the personal record information of the staff. Attendance, leave, transfer and training information can be updated efficiently with the help of ICT. It can also be used in managing the salary and analyzing the staff performance.
- 3 **Infrastructure Management:** Institutions can use ICT to maintain the accurate

details of building, facilities available, and hardware and software facilities.

- 4 **General Administrations:** ICT can be used to monitor the fund and grants. It can also be helpful in the management of inventory and procurement.

To manage the above mentioned areas of the institutions effectively and efficiently and for providing the fast and accurate access of the information to the parents, teachers, students, management, community and government, the institution must use **Institutional Administration/Management system** (Institution Administration Software) which provides a single secure database structure that organizes stores and retrieves real time information.

Institutional Management system (IMS) is the total managements system, windows-based Educational Management package with the power to revolutionize the way that university/colleges are run. **Institutional Management software** is not just a technology solution but it is an educational system in itself that will improve the way institution is managed. This connects all the stakeholders of education.

Key Constituents of Educational/School Management Software

Following are the main components in IMS Software:

- 1 **Institutional Administration system:** it makes communication easy with all the stakeholders involved in the educational process: Administrator, Teachers, Students and parents and Government. Teachers can easily access significant student information, generate reports, collaborate with other educators or develop lesson plans from virtually anywhere. Parents can view or be alerted to absences, grades assignments and institutional events. Students on grades and receive assistance outside of classroom. Government can assess the information for various requirements. **Institutional Administration software** provides a single secure database structure that organizes stores and retrieves information. It uses industry-standard Microsoft Windows® interface, that doesn't require a heavy amount of staff training.
- 2 **Student Management System:** It is basically a student information system. Students' information such as admission, attendance, grading, discipline and family information efficiently managed through this system. Data is entered

only once and the principal, teachers, parents, Government can instantly get customizable reports about the students. For example data of any student can be searched by just feeding in G.R. Number of that student.

- 3 ***Classroom Management System:*** It provides the password for each teacher. This system will help in time-table construction. Daily details of classroom teaching and provide the reminders of forthcoming assignments.
- 4 ***Institutional Exam Management:*** Mark-sheets are prepared with the help of this system. The marks can be compared of the marks of each exam and can be shown through graphical representation. Records of every exam of each class is maintained which provides
- 5 ***Fees Management System:*** Fee vouchers are generated and fee collection program can be adapted according to institution's rule.

Technical Requirements for Implementation of ICT in Educational Management

Number of companies worldwide is involved in making School/Educational Management Software which is web compatible also. Here quality education is the responsibility of the Central and State Government. The Government should take the initiative to make available unique software which fulfills the requirements of holding and managing data of teaching-learning as well as the administration. To implement ICT following technical requirements are needed:

-Front End: Microsoft Visual Studio.net

-Back End: MS Access

-Other Tools: MS Office XP, MS-Visio, Crystal reports, Graphic Tools

Some private software manufacturing companies in India are also involved in making Institutional/Educational Management Software. For example COM School Management Software or CBSE CCE software is a complete solution for all educational establishments and is sure to give an impetus to the performance of the schools. It covers the daily school tasks such as Registrations, Admissions, Fee Structure, Bus Routes, Examination Management, Creating Time Tables for both teachers and students, Hostel Management, Attendance, Accounting, SMS and over hundred modules that will escalate the managerial skills and the performance of the

school in all spheres.

These software companies assure that school Management software will remarkably reduce 95% of manual work. It will be hassle free and reduce the wastage of paper in the institution.

These companies can be asked to prepare the customized software fit for higher educational institutions. This should cover all the above mentions aspects of institutions as per the needs of the college/university.

Advantages of Use of ICT in Educational Management

Use of ICT in Educational Management will offer benefits in following areas:

1. The large-scale research (Visscher et al., 1999; Visscher & Bloemen, 1999) shows that, in the perception of SIS-users, the use of SISs has lead to positive effects such as:

- 1 Better insight into how the institution functions;
- 2 Better evaluation of institutional performance;
- 3 Better use of institutional resources;
- 4 Better information for curriculum planning;
- 5 Better internal communication.

2. Helps in analyzing the data quickly and accurately

Use of ICT will help in analyzing the available data quickly and accurately with the help of organized data. The Institutional/Educational Management Software arranges the data in the form of graphs, polygons, tables, means, and standard deviation etc. for analysis purpose. These are the readymade data obtained within the short period of data entry for analyze the data accurately and quickly.

3. Helps in quick decision making

The data obtained form the software can help the administrators to make quick decisions regarding the functioning of the institution. Teachers can also take the help for taking the decisions about improvement in teaching learning. This implementation of this software is also beneficial for the parent to select the good college/university

for their children.

4. Provides the power to the Administrators for efficient management of education and institution

Use of Educational Management Software will provide the power to the head of the institution and administrators for efficient management of education in the institutions. With the ready available data for analysis the administrators can make the quick decisions about the improvement in education and as well as improvement in the functioning of institution. IMS will help the institution to keep an eye on all the aspects which is generally not possible in working manually.

5. Reduces the burden of Teachers

It will reduce the burden of teachers. IMS will reduce the manual and clerical work from the part of teachers. The teachers can use the more time for constructive work and devote time for planning to innovative teaching.

6. Available at lowest total cost of ownership

The IMS can be made for the one large institution or for many institutions. The IMS software is cost effective for long term basis. It reduces the cost of papers as well as manual.

7. Provides information at the door steps

IMS provides the information at the door steps of the education department, State and Central Government, parents and community. All the stakeholders can refer the data at their time of convenience.

8. Reduces the Right to Information Applications

The implementation of EMS will reduce the applications of right to information. All the data i.e. academic, financial, administration etc will be available for ready reference for all. This will reduce complains of mismanagement and applications for providing information.

Constraints in the Implementation of ICT in Educational Management

The constraints in the implementation of ICT in educational management are as

follows:

1. Lack of Administrative will

The mindset of the large number of principals in our country is that whatever methodology they are using to manage the institution is good. There is no need to change and adopt the new technology. This is due to the lack of awareness about the technology and their benefits. Most of the principals have the phobia of technology and they also don't want to learn. They rely more on manual work than the computers.

2. Fear of Misuse of Data

There is a large no of principals feel that the making the public display of the financial data and other data may lead to misuse of data by antisocial elements and they will harass the institutions.

3. Lack of Financial Support

In the implementation of ICT in educational management is the lack of financial support from the government. There are colleges where mandatory infrastructure and facilities is lacking. To join those schools in mainstream and implement ICT for managing the education in those colleges, finance is needed. So without Government support is difficult to implement ICT in Educational Management.

4. Lack of Corporate-Institution Partnership

In India there is a rapid increase in billionaires and millionaires. But these corporate till now have not shown the willingness of social development. The corporate along with the opening of new educational institutional for elites, should involve actively in the social development by providing support to the poor institutions. The corporate should adopt some institutions for this purpose and ensure quality education in those institutions.

5. Different Working Styles

Like individuals institutions also have different working styles. This is due the availability of resources and mindset of the principals. And it is difficult to predict all the future trends and cater the needs of all the university/colleges. Therefore all the

university/colleges should be brought in one line and maintain a high level of system security.

6. Sharing of Innovative/Best Practices

In India there is disparity in quality of education provided by the institutions. Some institutions provide high quality education for elite, and use some innovative practices to set high standard in the society. Government schools are considered to schools for poor. They are lacking in quality aspect. But if ICT is implemented in these colleges, their practices will be shared. The colleges providing quality education are not willing to do so.

Conclusion

The government is now more concerned about the paradigm shift in education system. Now there is a buzz word of 'Quality' of education every where. But we cannot revamp the education system without making the administration of institutions effective and efficient. And this can only be done with the usage of technology i.e. ICT in the educational management.

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