Impact of ICT in Educational Institution

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Abstract

Information and Communication Technology (ICT) has gained credibility over the years as a trusted source of information. It has the role to empower academic institutions and help the full educational lifestyle, in terms of teaching, learning and research especially on the creation, dissemination and application. New media in the form of interactive communication like internet, email, websites, social media, mobile applications, blogs are the concrete way to influence educational establishments not only for teacher and student's interaction. But it also has an impact in academic administrative methods of workforce in academic institutions, to accept new behaviors. This article reviews the effect of new media in academic administration work and mainly staff administration and how it changes the educational institution culture. Usage of new media with the aid of team of workers for their work in the instructional institution, it is used for communication with workforce the usage of e-media, e-circulars from the organization related to reliable matters, automation of attendance, workforce workload, automation of marks etc. It reveals how the technology influences the education institution culture. This review research will be conducted through content (thematic) analysis. The aim of this article is to apprehend the cultural adjustments delivered about by way of the rapid diffusion of the new media in educational institution for group of workers administration.

Keywords: Impact, ICT, Educational Institution, Culture.

1. Introduction

ICT have revolutionized the field of education. Computers and the Internet technology can play a major role in reducing the work load of the administrators and staff especially in analysing information like student admission, student records and examination records, the monitoring and evaluation of staff, planning for institution activities, curriculum development and principal administration. These factors will increase the efficiency of the higher institutions of learning administration, if ICT facilities are properly implemented and utilized. Information and Communication Technology (ICT) has caused a major paradigm shift in how we approach the gathering, storage, retrieval, and analysing of information in every industry particularly in education administration also.
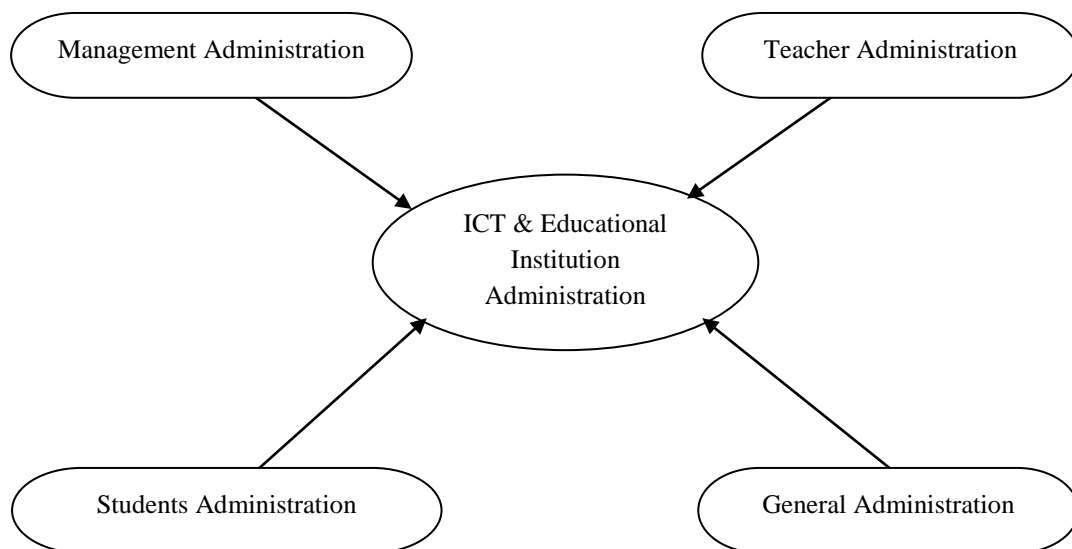
Figure 1. Conceptual Framework of Educational Institution Administration

2. Review of Literature

Ahmed, (2009) study shows that the use of ICT makes administrative and teaching process more flexible, less time consuming, and less expensive, and so most of the universities are trying to assume the benefits of ICT.

Awoleye, (2006) observes ICT enhances easy communication, is used as a research tool, and provides solutions to assignments.

Krishnaveni & Meenakumari, (2010) identifies three main areas significant to management of higher education institutions to include: student administration, staff administration, and general administration. Items identifies under staff, and general administration include:

- Recruitment and work allotment of staff in the institution,
- Attendance and leave management of staff members, and performance appraisal
- Use of e-media for scheduling/allocation of examination halls,
- Fee payments
- Use of e-media for the processing and display of results of students, etc.

Pulugurta Chandra Sekhar, (2014) mentions that two major assumptions underline the role of ICT: the first is that the proliferation of technologies is causing rapid transformations in all areas of life; the second is that ICT function to unify and standardize culture.

Suhail Anwar and Sibichan Mathew, (2014) explains that ICT extend opportunities to supervise, coordinate and to control day-to-day administrative activities of the academic institution in easy and transparent ways. This may include admission enquiry by students, availability of information like timetable / class schedule in electronic form and attendance monitoring / maintaining through e-media.

3. Concept

3.1. Paradigm Shift

A paradigm is "a world view, a way of ordering and simplifying the perceptual world's stunning complexity by making certain fundamental assumptions about the nature of the universe, of the individual, and of society. Paradigms are normative; they determine what the practitioner views as important and unimportant, reasonable and unreasonable, legitimate and illegitimate, possible and impossible, and what to attend to and what to ignore. (Kuhn, 1970). Thus all theories as well as the methods generated by them are, ultimately, paradigm based."

Information and Communication Technology (ICT) has caused a major paradigm shift in how we approach the gathering, storage, retrieval, and analysis of information in every industry (Jankowski, 1996). Over the last two decades there have been fundamental shifts in the way teaching and learning are perceived and conducted within the education sector. One is a move from teacher-centred to student-centred education, and another is a move from the traditional to the virtual classroom.

3.2. Management Administration: Traditional Vs Modern

Management administration involves Student admission through electronic media, registration / enrolment using computers, course allotment, scheduling interview for faculty recruitment, staff in the institution and assessments etc., The item categories for traditional and modern method of management administration are summarized in **Table 1.**

Table 1. Management Administration

Sl. No	Traditional Method of Administration	Modern Method of Administration
1	Printed application forms and manual paper based fees payment.	Enable applicants to apply online to programs via Online portal: enable hassle-free online payment and tracking of applications throughout the admission process.
2	Selection and quota allocations done through notice board display or manual letter based communication.	E-data for capturing all necessary selection criteria and configure ranking rules: manage quotas and allocations: generate various selection lists including Merit lists and waiting lists based on specific criteria.
3	Interviews and assessment through letter and telephone calls.	Schedule various interviews and assessments: incorporate their scores into the selection process.

3.3. Teacher Administration: Traditional Vs Modern

Teacher administration includes work allotment of faculty, their attendance and leave management, and performance appraisal. The item categories for traditional and modern method of teacher administration are summarized in **Table 2.**

Table 2. Teacher Administration

Sl. No	Traditional Method of Administration	Modern Method of Administration
1	Information maintained in records.	e-kiosks are available in the institution to view detailed profile including personal information, qualification, skill set, experience, salary, leave, attendance, and co-curricular activities.
2	Printed circulars used regarding official matters.	e-circulars from the institution regarding official matters.
3	Faculty recruitment made through hardcopy applications, letter based interviews and appointments.	Support faculty recruitment process through online applications: manage interviews and appointments.

3.4. Student Administration: Traditional Vs Modern

Student administration is an important and integral part of information administration. This involves activities commencing from the admission process to learning activities till processing of results and performance analysis. This includes maintenance of student's information system, attendance monitoring, conduct assessment, issue of hall tickets, online fee payment etc., The item categories for traditional and modern method of student administration are summarized in **Table 3.**

Table 3. Student Administration

Sl. No	Traditional Method of Administration	Modern Method of Administration
1	Usage of records for student registration /enrolment.	Usage of computers for comprehensive student information system with full student profile such as attendance, assessment, mark grades, hall tickets etc.,

2	Manual fee payment, profile maintenance in records, etc.,	Usage of e media to provide students login to pay fees, update profile, requisition various services like ID card, Transfer certificate, hall ticket etc.,
3	Submission and review of assignment / tests were manually done.	Submit and review assignment/tests and view results online: apply for re-valuation.

3.5. General Administration: Traditional Vs Modern

General administration involves the various day to day activities of the entire system. It includes usage of new media for scheduling of halls and other resources, handling internal and external examination activities in coordination with the faculty members, intra and inter communication etc., The item categories for traditional and modern method of general administration are summarized in **Table 4.**

Table 4. General Administration

Sl. No	Traditional Method of Administration	Modern Method of Administration
1	Information via letter, or printed circulars.	Automatic notifications (via Email, SMS) to relevant stakeholders on event triggers.
2	Maintenance of paper files, documents, registers and images required for accreditation.	Usage of Document management system to upload and manage multiple documents required for accreditation.
3	Placement management done through letters, written tests, documents and registers.	Integration of online assessment for the entire placement process beginning with creation of student profiles, scheduling of company visits logging of stage-wise student performance till publication of final results.

4. Areas of Application of ICT

ICT can be applied in many areas of education like Curriculum Setting, Time Tabling, Students Attendance, Teaching, Students Assessment, General Administration and Admission. The different areas of application of ICT is summarized in **Table 5.**

Table 5. Areas of Application of ICT

S.No	Area	Application
i.	Curriculum Setting	Implement a state-of- the-art ICT curriculum.
ii.	Time Tabling	Calendar, Teaching time table, Examination time table
iii.	Students Attendance	Facilitates access to the attendance of a particular student in a particular class.
iv.	Teaching	Digital interactive education focuses on using all interactive modules like videos and presentation.
v.	Students Assessment	Digital devices to assist in the construction, delivery, storage of student assessment tasks, grades or feedback.
vi.	General Administration	Financial records, word processing, examination processing, inventory records, students' records.
vii.	Admission	Registrations and payment of fees are processed online.

5. ICT and Cultural Change

ICT plays as a change agent in Educational Institutional culture. The need to sustain and be competitive in a global scenario requires decisions to be taken quickly and effectively. This has enhanced the scope and complexity of administration, thus making it necessary to adopt different methods of educational institution's administration. The culture of an institution, which has a thorough effect on the performance, determines arrangements, decisions, human resources, and individuals' response to circumstantial challenges.

6. Conclusion

ICT is now vital in terms of supporting the delivery of learning, teaching, research and administration in all educational institutions. Students are increasingly expecting to have information about their course and other administrative related information available online.

The role of teachers will transform into the role of facilitators of knowledge, guides, mentors, e-tutors, and counsellors. Teachers will act as virtual guides for students who use electronic media. It forces the teacher to look beyond the text book and traditional methods. As teacher educators play a major role in successful implementation of ICT in education all this calls for urgent need for retraining of teachers. As this is a shift from traditional learning, these new technologies not only make them aware of their hidden strength but also boost their enthusiasm and energy level with its outcome. With these new technologies a teacher can be an omniscient and omnipresent for the students.

Our study stands unique which covers how ICT influence educational institution. Integration of New media for educational institution administration in various sectors will enable enhancement for overall information administration in education institutions in the realm of global competitive environment.

This study reveals the signs of prevailing hierarchy culture among teachers. Students belief is gradually changed to ICT learning. ICT enhance the management administration and general administration too, where it reduces the man power. So with the support of new media, culture and education cannot be divorced from each other.

7. Acknowledgements

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