

E-Governance in Higher Education Institutions: A Literature Review

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Abstract

Democracy requires justice and equity to all. Providing equitable opportunities to all is possible through inclusive growth. Inclusive growth implies providing equal opportunities of growth to all the citizens in every walk of life. Education is one area which affects one and all equally. India being a mixed economy and primary education being considered the state responsibility is almost accessible to all. The main area which requires focus is the higher education. In higher education in India, government has now only a limited role to play as far as physical infrastructure is concerned. Government being short of resources is encouraging private sector to come forth. This is a good step but given the dynamics of our country, majority of youth may not be able to pay the fees as demanded by the private institutions. In this scenario they may lose the opportunity of getting higher education. In this context the paper explores the various researches conducted on need of incorporating e-Governance initiatives in the higher education institutions.

Introduction

In India, higher education system is very wide and large. It is increasing but still very low as compared to developed countries. Despite so many universities and colleges, physical infrastructure still falls short of the requirement. Students in rural and backward areas sometimes have to travel kilometers to reach the campus. Also the lack of college/university in the vicinity is another factor of low GER. So the both the government and the private sector needs to scale up the infrastructure to cater to the increasing demands of the students and other stakeholders. Given the resource constraint it is difficult to meet all the stakeholders' demands through traditional method. The need of the hour is to implement e-governance initiatives. E-governance refers to governance through electronic medium. Like every other institution higher

education institutions also needs to adopt e-Governance. E-Governance in higher education institution refers to use of information and communications technology for exchange of information, carrying out transactions, delivering services and integration of standalone services between government to government or government to citizens or government to business. In case of higher education institutions it refers to interaction between the institution and the stakeholders.

Objectives

To carry out extensive literature review of various studies conducted on need and benefits of incorporating e-Governance initiatives in higher education institutions.

Research Methodology

Extensive literature review was carried from the period 2004 to 2012 on need of e-Governance initiatives in higher education institutions. Various databases: Scopus, ERIC, ScienceDirect, JSTOR and Academic Search Engines: Google Scholar, Semantic Scholar were referred.

Studies Highlighting Need for E-Governance in Higher Education Institutions

Obeng (2004) pointed out that developing countries has a lot to benefit by introducing and promoting ICT in higher education. ICT is going to release the strain on resources and those limited resources can be used for a larger good. Obeng said that ICT in admission process can be of great help. Doing admissions online increases it reach to students beyond physical boundaries. Universities can offer online course which make sure that benefit percolates to all sections of society. Researchers and lecturers can have access to online databases and can share information and ideas with online communities, which can help them in carrying out extensive academic and business research. Administration can store all students records in an online database making it available to all the departments as when required. This will reduce duplication as well as overlapping. The problem of lack of skilled faculty can also be tackled through the usage of ICT tools like video conferencing, online chat and online discussions. Obeng pointed that way to improved quality education is through ICT.

Colle (2005) conducted research in African Universities regarding the role of ICT for capacity building. The author found that in both South India and Africa researchers rely on public access tele-centers for information access. Author suggested since colleges and universities are major players involved in the nation building and capacity building,

they must provide for the telecentres. Through telecentres they must play their social role of storing and disseminating the information. The author suggested University's e-readiness as the preliminary step to get the things going.

Kumar and Kumar (2006) analysed whether India academia also believe that knowledge management system based on IT will work for the benefit of the institution. The study defined knowledge management intervention through the following six variables:-

Institutional Research and Development;Curriculum Enhancement Process;Institutional Policy Framework; Financial Matters;GeneralAdministration;StudentMatters.The study inferred that out of the six, three most important factors needing IT intervention are institutional policy framework, institutional research and development and curriculum enhancement. These three areas further build the base for the remaining three. An institution should apply IT to these three areas to satisfy its stakeholders which includes the highly dynamic students besides others. Also it not only increases the satisfaction level of stakeholders but ultimately reduces the overall investment in the higher education system by streamlining the structures and processes.

Mugenda (2006) contended that ICT helps disseminate knowledge and information and separating the content from location constraints. ICT helps not only country but also an educational institution to become competitive and globalized. Not only the students within the vicinity have access to that institution rather ICT helps bring the remote and physically inaccessible locations into mainstream knowledge societies. It initially takes investment to develop ICT but the scalable nature of ICT results in declining marginal costs. Replication of content does not involve further costs which in turn means zero distribution costs. This results in reduced transaction costs. The researcher suggested that by training requisite manpower Universities can fully exploit the ICT and enhance the overall administrative and managerial efficiency by computerising student admissions, data management and better medical facilities. The only constraint Government University may encounter is the resource constraint which can be overcome by exploring Public Private Partnership model.

Raposo, Leitˆao, and Paco (2006) argued that e-Governance initiatives have become quite important in the recent times. These initiative have become kind of essential for the sustenance of every institution in general and higher education institutions in

particular. They help an institution to cater to demands and needs of both external and internal stakeholders. Internal stakeholders through G2G initiatives and external stakeholders through G2B and G2C initiatives. These initiatives should be made heart and soul of the entire institution. Also these initiatives should be structured in such a way that they help an institution to meet the requirements of various benchmarking indices. These initiatives may further help the institution in SWOT analysis and achieve a competitive advantage.

COL (2009) stated that given the high influx of students, ever increasing demands of students and other stakeholders and the need to maintain students progression data require every institution to incorporate ICT based solutions. ICT could be applied by an institution to almost all the student activities starting from admissions, online assessment, online result updation, grievance handling mechanism and to maintain students' progression. ICT applications will also help the faculty in research and further upgradation of their skills. One important future application of ICT suggested by the body is introduction of online courses also referred to as e- Learning which will help to break geographical barriers.

Snehi (2009) highlighted that ICT integration can do wonders for the efficiency of the Universities. Networking of different departments, sections, can achieved through ICT. Networking would enable better and free flow of information among various constituents of the University. ICT would also enable and contribute to management information system. A good MIS will in turn help in better management of financial resources and students' data like record keeping, admission details, alumni details, documents management, examination etc.

Dutta and Joshi (2011) studied how to bridge the digital divide in higher education through the use of Information and communication technology. The author found that digital divide is not a universal phenomenon. The knowledge of computers will not be paramount condition in future as they will get more smarter and easier to use. In future high tech skills will not be required and people with basic literacy level could use e-Governance initiatives. We are moving in that direction very quickly as even now phone have become smarter and one could access all e-services through phone. This divide will completely vanish in future.

Pircher and Pausits (2011) found that knowledge management in higher education is based on decentralized IT development and infrastructure between various divisions across the institutions. Every department and divisions is having its stand-alone IT applications. There is no integration among different departments in the institutions. So, no sharing of information and information overload are the problems frequently encountered in institutions. Also the applications are developed from administrative point of view and not from end user point of view. End user who may be student, teacher or management find it not up to the mark. To overcome this, institutions should adopt an integrated approach. All department, divisions should be treated as one unit. To manage this, institutions may appoint Chief Information Officer. The Chief Information Officer must ensure the data integration and sharing between different department, divisions and end users.

Sarkar (2012) suggested that ICT should no longer be seen as educational tool but rather should be view as means of socio-economic development. ICT should be viewed to achieve socio-economic parity in the economy. The ICT has increased both geographical and content opportunities for the learners. ICT has led to the emergence of OER's (Open Education Resources). The author reiterated that ICT integration in higher education is inevitable. Management Information Systems which are the backbone of every institution are based on IT applications. The institutions which delay the implementation of these e-Governance initiatives will lag behind.

Shrivastava, Raizada, and Neeta (2012) examined the importance of e-Governance in strengthening higher education system in India. The study highlighted that in the era of globalized, highly informed knowledge societies and ever increasing expectations of the stakeholders, administration has to be vigilant and responsive which can be achieved only with the help of e-Governance initiatives. Since the concern is not only introducing e- Governance initiatives, the focus should be on effective implementation. The author reiterated that such implementation would require proper legislation amendments by the government and proper policy framework both at the national and institutional level. The problem of infrastructure and resources that government faces can be solved by Public Private Partnership model.

Toro and Joshi (2012) carried out literature review on ICT in higher education in India from the period 2004-2011. The researcher pointed that ICT integration is the only way

to future. In future focus has to be on ICT to help and promote open and distance learning. ICT policy should be framed both at the institution level and country level. This policy framework should promote research backed by adequate infrastructure. Digital libraries, online databases, EDUSAT and DTH should be promoted to ensure sharing of resource between institutions. Teachers should continuously update themselves to reap the maximum benefit of technology. The wide integration requires a complete overhaul of mindsets of all.

Findings

- E-Governance helps an institution can satisfy its vast and vibrant set of stakeholders.
- E-Governance enables timely sharing of information with the stakeholders which makes the system more interactive and transparent.
- E-Governance helps in implementation of Management Information System which streamlines information, avoid duplication and enables timely processing of data.
- E-Governance goes beyond geographical dimensions.
- E-Governance provides global exposure to all the stakeholders.
- E-Governance can help overcome the problem of availability of skilled faculty .E-Governance helps break this barrier by use of ICT technologies like video conferencing, online courses, online chats.
- E-Governance also helps overcome the problem of costly text. The cost of replicating the material once prepared in the online environment is very low which brings down the distribution and transactions costs .

Conclusion

It is social responsibility of all to cater to educational needs of youth, living in urban as well as rural areas. Government being the resource constraint entity can meet this requirement by incorporating e-governance initiatives in HEI. Not only the government sector, private sector has to emerge s a leader in providing world class facilities and learning to the students. The focus has to shift from only meeting needs of students to satisfying all the stakeholders. Be it public or private institution , the only window to good governance is e-Governance.

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