

THE SIGNIFICANCE OF ELECTRONIC- GOVERNANCE IN THE GLOBAL PERSPECTIVE OF EDUCATION SYSTEM

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Introduction:

In all societies, the formation of public governance is largely dependent on its contextual parameters, including social structures, economic condition, political atmosphere, cultural pattern and technological trend. The nature of governance often changes depending on the intensity and speed of transition in some of these surrounding factors. In the current age, one of the most significant contextual phenomena affecting public governance is the revolution in information and communicating technology (ICT). India is one of the leading countries venturing into e-Governance. Recently, the Indian government has set the target of delivering at least 25 percent of dealings and services electronically. In this regard the Indian government major policy measures have been defined in computer density, connectivity content, cost and cyber laws. More specifically, The Indian government has decided to boost computer connectivity by improving telecommunication system based on optic fibre networks; to upgrade content by making government sources on computers readable by ordinary citizens to cover the cost of ICT by ensuring adequate allocation in the national budget and to introduce cyberlaws by adopting the Information Technology Act. Under this overall policy framework, the government has introduced various measures for e-governance, which can be categorized into national and state-level initiatives and institutions. Electronic governance or E-Governance is the latest buzzword for governments trying to involve people in administration, address transparency in the bureaucracies and make themselves more responsive to their citizens. The benefits of E-governance are faster decision making, reduction of duplication of work, detection of corruption and illegal transaction, prevention of knowledge drain. Now a day E-governance occupies the topmost position in the development agenda of almost all governments in the world and lot of money is being pumped to various e-Governance initiatives. Therefore very intelligent planning is required to produce desired results. The spectrum of E-Governance is beyond the scope of e-government. While e-government is defined as a merely delivery of basic government service and information to the general public using electronic ways, E-Governance allows direct participation of constituents in government activities. Blake harris summarizes the E-Governance as the following; E-Governance is not just about government Website and E-Mail. It is not just about service delivery over the internet. It is not just about digital access to government information or electronic payments. It will change how citizen relate to each other. It will bring new concepts of citizenship, both in terms of needs and responsibilities. E-Governance will allow citizens to Communicate with government; participate in the government's policy making and citizens to communicate to each other.

The E-Governance will truly allow citizens to participate in the government decision making process, reflect their true needs and welfare by utilizing e-government as a tool. Governments all over the world are attempting to move from the era of efficiencies in the service sector to that of effectiveness in providing services (Satyanarayana, 2004). They are convinced that a significant transformation of governance is possible if the tools of the digital world are strategically deployed. The state government has begun to computerize most departments, especially the education department. In major city Bangalore, is known as an IT hub attracting over 1500 IT companies from advanced industrial nations and its Indian Institute of Information

Technology has a very advanced infrastructure and IT facilities (Siliconia, 2001) Furthermore under its department of Information Technology, the government plans to create a centre of E- Governance. It recently signed a memorandum of understanding with the Microsoft Company with a view to computerizing all departments. Similarly the government of Tamil Nadu strongly committed to transforming the state into an advanced system of e-governance by computerizing all departments. Education is a major concern of almost all countries in the world. Government envisions to produce quality graduates to help them propel their country in the aspect of economy, political and social. The Government of many countries invests in education to put up educational institution they directly control to maintain academic excellence and to eventually become Center of Academic Excellence.

Knowledge based in Economy with reference to India “we are living through a period of profound change and transformation of the shape of society and its underlying economic based...the nature of production, trade, employment and work in the coming decades will be different from what is today. A knowledge economy is one in which knowledge is the key resource. It is not a new idea that knowledge plays an important role in the economy and Education at large. All economies, however simple are based on Knowledge Management; the use of knowledge has been increasing since the industrial Revolution. But the degree of incorporation of knowledge and information to the economic activity is now great that is inducing quite profound structural and qualitative advantage. In India E Governance in Global Education System using Knowledge Management Approach is important because A knowledge economy is in effect, a hierarchy of networks, driven by the acceleration of the rate of change and the rate of learning, where the opportunity and capability to get access to and join knowledge intensive and learning intensive relations determines the socio economic position of individuals and Firms. As firms develop new product and process, firms determine which activities they will undertake individually or in collaboration with the universities or research institutions and which the government will support. Innovation is thus the result of numerous interactions between actors and institutions. The Indian Vision of a knowledge-based economy will be realized only when it is based on the foundation of a robust industrial economy. To be truly beneficial, the rain of IT must fall in the right place, in the right quantity, at the right time Right purpose. The Indian software industry has compiled an impressive track record over the past decade. Education system is the important service sector that needs more focus on E-Governance deployment, especially for Technical Education System (TES). TES is an important facilitator of economic development. It is also a major focal area of government intervention due to its higher social and global importance. Government system provides adequate control over the technical education that needs new innovative assessment technique. We have suggested one innovative technique (e.g KM based AHP), which can be used for TES evaluation. Government support is essential to accomplish this task. The government process provides the knowledge based input which maybe used for critical decision making.

TES which at a much faster rate, creates a lot of opportunities but at the same time requires sufficient control over the technical institutes to follow the quality standards of education (Liberatore and Nydick, 1999). This need to monitor and evaluate periodically the performance of the institutes is based on several criteria. The quality evaluation of the institute's means to decide quality factors or criteria based on critical Knowledge Management (KM) based evaluation. Saxena and Wadhwa (2004) suggest growing need for focusing on the influence of knowledge transfer in human resource development. They have given adequate direction to incorporate globalization and knowledge management in human resources development systems in order to meet digital era goals. TES is facing a huge challenge because of constraints in resources such as finance, trained teachers, infrastructure and costly technologies (Bodin and Gass, 2003). In order to provide potential services to students, the TES is making use of KM and E-learning as means of promotion and improving upon the quality of technology. E-learning has the potential to revolutionize the basic tenets of learning by making it individual rather than institution or industry based, more concerned about TES knowledge transfer and training, eliminating clock hour measures in favor of performance and outcome measures. Present evaluation system for any institute is based on the certain criteria and experts evaluate the performance on their individual benchmark and standards, which are direct evaluations based on

the allotment of marks. KM can help us to generate the useful data and selection of critical components of the objective and thereafter Analytical Hierarchy Process (AHP) is the tool, which facilitates in the entire critical decision making and has the potential to improve existing system of evaluation and Decision making (Ray and Triantaphyllou, 1999). The central problem is how to evaluate a set of alternatives in terms of a number of criteria. To overcome this problem we suggested KM based procedures to acquired critical factors. AHP based evaluation of any technical institute which is facilitated by KM inputs is suggested as an alternative because of present methodology being conflicting, inaccurate and lengthy. In this application the final decision depends on the evaluation of a set of alternatives in terms of number of decision criteria developed by KM processes.

This paper examines evaluation case of four institutions in which criteria are generated through KM process and critically evaluates the issues involved, when the AHP method is used to apply for ranking of the

institutes. The method takes into account various changes in educational system and analyzes the result(s) faster and effectively. We analyze the performance of the different technical institutes by using AHP and suggested the improvement possible in assessment by using this approach. Governance supports the technical institutes in various manner with its various supportive components like autonomy, sociability, pro-activity and reactivity. Every organization is built on governance in TES (kumar and Wadhwa), 2003). Governance support technical institutes in various manner with its various supportive components like autonomy, sociability, proactivity and reactivity. Every organization is built on governance, whether formal or informal, ineffective or successful. In order to survive and thrive in the electronic age, government must change the way they buy business tools, software packages, information, global accessibility, more flexibility in operation and even services. The governance process is knowledge intensive with regular updates on knowledge. In this context, e governance can ensure more web based services, decisional supports, financial aids, easy interaction, training, etc that can help improve qualitative and procedural performances of the TES.

E-Governance can facilitate expert knowledge sharing as well as advance a consensus towards a knowledge bank that is based on bench marking knowledge to compare various criteria, the experts can then evaluate more effectively the performance of various technical institutes. Presently the experts come from the different backgrounds and different geographical areas. They are domain experts but the relative performance assessment may not be uniform, unless they are exposed to a uniform knowledge bank that is consensus based. The E-learning focus in this context should be on knowledge sharing. The KM support here may be kept interactive in nature. The KM focus at this level is to share knowledge about the criteria and analysis tools. Government systems can maintain on the web, a consensus knowledge that is useful for all the experts. KM as a formal discipline of management in e-governance can be very helpful for creation, transfer, documentation, storage, and utilization of knowledge comprising administrative process and decisions, in digital form. This enables the government departments to provide required knowledge to experts, provide electronic services, create electronic portals and conduct electronic transactions through integrated systems. KM provides processes to capture a part of tacit knowledge through informal methods and high percentage of explicit knowledge, reducing the loss of organizational knowledge (Nonaka and tekeuchi, 1995) . Effective KM practice can help to share this knowledge with technical institutes on need basis. Continual efforts to grow awareness, acquire, adapt, apply and advanced environment-focused knowledge distribution as it significantly affects the TES. The e-governance framework can integrate localized knowledge sources into a single integrated system can serve as one stop for governance (Gutpa et.al. 2003).KM can facilitate the government to share knowledge in institutes-government integration environment. Wadha et.al 2004 discuss the implication of KM application is web based system contexts, especially the telemedicine domain. In this way they promote the benefits of KM in the knowledge intensive systems. It is based on direct observation of knowledge experts and sometimes enriched by an expert general evaluator. The evaluations process is lengthy and affected by individual expert opinion or his benchmarks. The automation of the process with the AFP based software can remove the problem satisfactorily and contribute to the improvement in quality.

The potential benefit can be saves expert time, money, transparent functioning, more responsive and accountable, information of all the institutions approved becomes available on the internet, information in respect of infrastructure facilities of the institute becomes available to the general public in order to make choice for rewards, etc. In our opinion, well planned investment focusing on the judicious use of IT can maximize the value from the KM efforts in the TES domain. It is suggested that the use of IT in form of databases, expert systems, industrial engineering tools, simulation tools and enterprise modeling tools can help in improving many similar processes. An important point for us is to learn from global experiences, but develop our own ingenious solutions for our specific needs. For example we need to position KM as a support to the TES professionals and not a replacement of the knowledgeable professionals.

Problem Definition

The typical problem examined by the AHP consists of a set of alternatives and set of decision criteria. Since the problem is very common in many engineering application, AHP has been a very popular decision tool. Another reason that contributes to the wide use of AHP is the development of Expert Choice Software. Furthermore, many other computer packages have been developed and are based on the principles of the AHP.

I selected s real life case of four technical institutes (i.e \Institute A1, Institute A2, Institute A3, Institute A4) which are evaluated on the basis of seven criteria including sub criteria and formed a hierarchy structure of interdependency. The detail classifications of these factors are given below:

- i) Mission , Goals and Organization (100) :
- a) Management (50) (Mgt)

- b) Organizational Governance (50) (O&G)
 - ii) Financial Resources and Physical Resources and their utilization (100) : (FR & PR)
 - a) Financial Resources (40): (FR)
 - b) Physical Resources (40): (PR)
 - c) Other resources (20): (OR)
 - iii) Human Resources : Faculty and Staff (200) : (F & S)
 - a) Faculty (150) : (Fac)
 - b) Supporting staff (Tech/Admin) (50) : (SS)
 - iv) Human Resources Students (100) : Stud)
 - v) Teaching – Learning process (350)(TLP)
 - a) Syllabus and Academic, Calendar (100): (SAC)
 - b) Evaluation, Procedures, Feedback, Laboratory and Workshop
 - c) (50) : (EPF)
 - d) Computer facilities, library, Budget for Consumables (100): (CF)
 - vi) Supplementary Processes (50) : (SP)
 - vii) Industry-Institute interaction and Research and Development (100): (IIRD)

The aforesaid factors evaluate the institute's performance and finally the aggregate score is being used to compare the different alternatives. This evaluation is mostly used for institute promotion and development. This direct evaluation of the institute is more accurate and providing an absolute rating but still not feasible because of lengthy, time consuming and unjustified procedures.

Institutes Selection Process through AHP

AHP can assist an organization in selecting among alternative missions and selection of institutes for allocating resources to alternatives. The best suitable solution out of the four alternatives is found using Expert Choice software. The first step is the selection of the criteria for the evaluation of the model. After studying the TES model completely, it has been found that the benefits of model are only possible when it is actually implemented. So, implementation of the model is very essential. Although. The model provides lots of benefits, which includes efficient working procedure, effective, time based and statistically proved analysis. etc. It has been observed that the direct evaluation comprises the selection on individual expert's perception which is a very serious problem in present scenario. To overcome this problem, AHP is the one available alternative, which can further assess the evaluated data on the basis of defining general rules. This may expedite to reduce human errors and can obtain more acceptable results. Finally, the criteria's on which the performance of the model has been decided are seven criteria, which further has sub criteria. The traditional method based on this direct evaluation but this is time and resource consuming even we cannot compare the institutes due to lack of common opinion of experts of this field. They gave marks on the basis of one's own benchmark instead of common benchmark. The use of AHP also help us to get some other advantage such as use of the data for future use, sensitivity analysis, critical justification, common acceptance, easy application etc. We used AHP based multi criteria approach which validate the above result and provides significant insight of the alternatives for future purposes.

Conclusion

The conventional IMS based E-governance use a concept of knowledge centers to share knowledge. Our model of E-governance base on knowledge management system is built on KM cycle of Knowledge capturing. Knowledge sharing, Knowledge enhancing and knowledge preserving. E-Governance can play a major role to strengthen the technical education system by focusing on KM. this means proactive facilitation by E-governance means to evolve consensus based knowledge bank on key evaluation factors, how to combine these factors, and useful tools that offer greater value and consensus based case study knowledge. In this context we demonstrated the use of KM based AHP application as a useful tool for a more effective technical evaluation system. The direct evaluation process, which is based on the allotment of the marks, fails when the expert's opinion is different and perception is on the basis of individual decision. We have suggested an alternative methodology to resolve this problem using KM based AHP as a multi-criteria decision support. This approach can assist experts in critical decision making and justification. In this context governance systems need to promote new ways of system evaluation. A core function of technical education system is to be an intensive knowledge sharing organization. It is, thus, essential to manage its knowledge resources more effectively. Knowledge resources are the key to a scholarly teaching learning environment. It is useful to identify the KM inputs based on government process and the knowledge sharing attributes relevant for the system under study. The KM cycle to enrich e-governance may include knowledge awareness, knowledge acquisition, knowledge adaptation, knowledge application and knowledge advancement facilitations. E-Governance

system may also encourage technical institutes to support knowledge sharing between institutes and government that will ultimately strengthen the technical education system in the country.

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