E-LEARNING: AN ENABLER FOR BETTER PERFORMANCE OF MANAGEMENT INSTITUTES

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ABSTRACT

With globalization and changing face of organizational management, dynamic management skills are need of an hour. There is a high demand by industry for multi-disciplinary skills viz. communication skills, cross-culture etiquettes, techno-managerial ability, analytical skills, creative and innovative approach, problem solving skills etc. from Human Resource. This leads to increased responsibility on Management Institutions while preparing their students for corporate world. Management Institutions need to take efforts in empowering students with innovative and effective teaching and learning methods as competency and skill sets of management students differ. Due to this the appropriate categorization with concurrent assessment and evaluation is needed. Enriched industry interface would play a vital role to groom students with applied and experiential knowledge based training. This all requires appropriate system that would help to evaluate the students concurrently, maintaining their up-to-date tracking for further revisions in designed teaching and learning & grooming programs. E-learning system might contribute to provide solutions for tracking as well as innovative teaching and learning practices.

This paper examines e-learning system literature and also studies the existing awareness, perception and implementation of e-learning practices (academic and non-academic) of select management institutes in Pune. Secondly, it analyzes the typical structure of e-learning in these institutions and various problems faced towards its successful implementation. It takes up a solution towards increasing the more application of, use of e-learning.

Keywords: E-learning, E-learning and performance of management institutes

INTRODUCTION

People with dynamic skill sets are in demand by industry. Training and development function is playing a key role in all the organizations to improve skill sets and build competency in this context. Understanding this need, Corporates deploy different methods and formats of training that would be effective and time and cost saving. E-learning - one of the outcomes of rapidly changing technology and its benefits of time and cost saving is getting used by most of the organizations. Thus corporate e-learning is taking shape for training and development of employees. The global interest in e-learning is growing where delivery of training and education takes place over the Internet. According to the Gartner Group reports, e-learning is being adopted universally and more quickly than many other “e”
In the world of education, the use of internet-based technology solutions to deliver a wide spectrum of knowledge to students/learners has been a trending topic since more than a decade.

E-learning market comprises of different business models. There are models like Disruptive Business (free open access) and the paid Education giants (paid distribution) models. The few examples of such business models are edX, Udacity, Coursera, Knewton, Udemy, Khan Academy, MITx, 2U, iTuens U, Code Academy etc. These are individual ventures or joint ventures running courses in large volume.

The worldwide market for Self-Paced E-Learning reached $35.6 billion in 2011. The five-year compound annual growth rate is estimated at around 7.6%, so revenues should reach some $51.5 billion by 2016. According to Education Sector Facebook 2012, eLearning is expected to grow at an average of 23% in the years 2013-2017. According to recent regional studies, the highest growth rate in Asia is at 17.3%, followed by Eastern Europe, Africa, and Latin America at 16.9%, 15.2%, and 14.6%, respectively.

Asia has the world’s highest regional growth rate for E-Learning, of 17.3%. India is the second largest market of E-learning having the largest growth rate amongst all countries in the past years followed by closely China. India, the largest education system in the world is having a network of more than 1 million schools and 18,000 higher education institutions. Target market for education and related services consists of more than half of country’s 1.2 billion population.

The E-Learning industry in India was valued at INR 18.41 trillion in 2010/2011 whereas its online education market size is set to grow to $40 billion by 2017 from the present $20 billion. A Compound Annual Growth Rate (CAGR) of 17.4% over the period FY2013 to FY2018 is estimated by the Ken Research Group report, ‘India’s E-Learning Market Outlook to FY2018.

E-learning courses and practices have been adapted by many universities and colleges, corporations, non-governmental organizations (NGOs), government agencies, and individuals in their day-to-day operations and/or core business functions. E-learning courses are offered to students for college credits, to employees for job training and skill development, to educators for professional development, and also to individuals interested in particular topics and skills. Most of the operations of Educational Institutes are going online due to its several benefits and need of the hour. E-learning is being used into online tutoring, career development and/or personal development and in various management, finance and IT related skills as well. Thus, E-learning is enabling different ways of teaching and learning in all the fields.

OBJECTIVES

1. To study existing infrastructure for implementing E-learning system in management institutions
2. To study perceptions about e-learning of stakeholders of management institutions
3. To find role of e-learning as an enabler to contribute in better performance of management institutions

RESEARCH QUESTIONS

1. Do management institutes have adequate infrastructure to implement e-learning system?
2. What are the expectations of teachers and students about use of e-learning in management education?
3. What is the status of current e-learning practices at select management institutions with reference to improving efficiency?

REVIEW OF LITERATURE

E-learning is a huge canvas with different perception. It begins with its definition. There is no single definition of e-learning. Not only definition e-learning gets spelled as well differently viz. eLearning, eLearning, e-learning, e-learning etc. It got coined with different names like online learning, technology enabled learning, and computer mediated learning and so on. Majority of the definitions talked about use of
hardware, software applications, tools and technologies for teaching and learning practices. The definitions differ in mention of tools and technologies and the focus of its outcome. Kenneth Fee (2010) treated e-learning as an approach merely than just a prefix of “e” for learning with electronic media. He defined a jargon-free working definition of E-learning as “E-learning is an approach to learning and development: a collection of learning methods using digital technologies, which enable, distribute and enhance learning.” (Kenneth Fee, 2010) Thus he believed that e-learning is an enabler in enhancing learning experience.

The journey of e-learning since its inception itself highlights changing role and face of the concept from merely use of technology to contributor in enhancing efficiency and effectiveness of learning experience adding to improved performance of institutions as a whole.

“E-learning” as a term came in existence since 1999 at a CBT systems seminar. E-learning got introduced for Distance education and used to be referred interchangeable term for distance learning. In 1924, the first “testing machine” was invented; it allowed students to test themselves. In 1954, “teaching machine” was invented by BF Skinner, a Harvard Professor. This machine was used by schools to administer programmed instruction to the students. In 1960 the first CBT – Computer based Training Programme namely PLATO –Programmed Logic was introduced. This enabled Automated Teaching Operations. Initially it was designed for the students of University of Illinios but got used in schools throughout area. According to Charp (1997), in early 1980s the computer industry and multimedia organizations started to constitute e-learning as a reality with CBT. During this period teachers of higher education had just begun to use PowerPoint in the class. The main focus was to create visually enhanced presentations, and also to play videos for detailed explanation. In 1970s online learning started changing from ‘delivering information to students’ to interactive courses. In Britain, Open University was running courses primarily focusing on distance learning with post and correspondence. Later the faster correspondence was provided via email after introduction of Internet. The Open University also offered a wider range of interactive educational experiences with the use of Internet. The first MAC was introduced in 1980. This led having computers individuals at their home providing more opportunity for e-access.

In mid of 1990’s with great success of internet, multimedia applications were improved. This led to launching of mainstream online education. (Hall, 2000, and Herrington, Reeves, & Oliver, 2005) Online education courses became more popular at colleges and businesses since 2000. (Campbell, 2004) Online education became feasible due to great streaming media, online video access, and fast web site servers. Being flexible to access at anytime and anywhere, e-learning became beneficial for students and working people. In the 2000’s e-learning began to use by businesses to train their employees. It was used to improve employees’ industry knowledge base and expand their skill sets. The online degree courses were introduced to enrich individuals’ lives through expanded knowledge. The evolution of e-learning could be summarized as follows based on the information from literature mentioned above.

**EVOLUTION OF E-LEARNING**

<table>
<thead>
<tr>
<th>Year</th>
<th>Nature of e-learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960</td>
<td>Computer-Based Training (CBT)</td>
</tr>
<tr>
<td>1970</td>
<td>Interactive Online Learning</td>
</tr>
<tr>
<td>1990</td>
<td>Online education with internet</td>
</tr>
<tr>
<td>2000</td>
<td>Online education courses with great streaming media, online video access, and fast web site servers</td>
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</table>
The literature indicates that role of e-learning got changed from just as media to enhancement of learning experience with learner-centric learning environment. In addition to this many tools and technologies provide fast and real-time tracking systems of learning performance and related educational activities.

Contribution of e-learning is mainly because of its advantages viz. anytime anywhere access being convenient for learners and teachers, effective learning as students may refer the content again and again for better understanding, cost effective learning approaches making affordable for economical class as well, enriched and enhanced learning with simulation-based learning, increased industry interface etc., Just-in-time learning ability, feasibility for unlimited simultaneous users, and most important is cost effective solutions. E-learning faces problems like technology issues, positive acceptance by users, initially need for heavy investment for few technologies leading to costly affair, increased workload of faculty members / instructors, drop-out rate of students in completion of courses, poor quality of content etc. Understanding these two sides of coins, selection appropriate type(s) of e-learning and related tools and technologies would help to improve performance of management institutions. Broadly the types of e-learning are asynchronous and synchronous e-learning. In asynchronous e-learning communication between teacher and student does not happen in real-time; it is mainly by exchanging material via e-mail or posting messages on discussion forums. However in case of synchronous e-learning students and teachers interact with each other in real-time with presence at different locations. Internet plays a vital role in effective learning in synchronous mode. The tools used in synchronous e-learning are real-time chat (text / video), interactive TV / boards, audio / video conferencing etc.

There is huge literature available about e-learning. Researchers contributed to find issues, problems, challenges and opportunities of e-learning in different sectors including educational sector from school to UG and PG courses. Few researches discussed different formats of e-learning viz. e-learning for distance education, purely online courses, partially online courses, hybrid models of courses etc.

There are certain learning theories that discuss various issues in practices of teaching and learning and its impact on effectiveness of learning. Most of the researchers focus on e-learning as one of the means or mechanism of learning and not a different learning type. Therefore there are some models of e-learning developed in relation to different learning styles and style preferences like training learning cycle, Kolb’s experiential learning cycle, Colin Rose’s accelerated learning, Kirkpatrick’s four levels etc.

The following table depicts few e-learning models explored through literature

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Researchers</th>
<th>Name of Model</th>
<th>Year</th>
<th>Main components</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Omamerhi Ebojoh, Hongjiang Xu</td>
<td>effectiveness of online program</td>
<td>2007</td>
<td>Assessment, Delivery methods</td>
</tr>
<tr>
<td>2</td>
<td>B. Vassiliadis, A. Stefani, L. Drossos, M. Xenos</td>
<td>a light-weight blended educational model</td>
<td>2007</td>
<td>Pedagogy, Technology, Economy</td>
</tr>
<tr>
<td>3</td>
<td>Meredith and Newton</td>
<td>Learning through doing – an heuristic model</td>
<td>2002</td>
<td>the issues are discussed with respect to more and more e-learning experiments</td>
</tr>
<tr>
<td>4</td>
<td>Meredith and Newton</td>
<td>Convergence of three key factors model</td>
<td>2002</td>
<td>Learning capability, Pedagogy, Technology</td>
</tr>
</tbody>
</table>
5. Collis & Moonen  Holistic Model  2001  Flexible learning with respect to Technology, Pedagogy, Implementation, Institution

6. Salmon  Institutional Policy & Support Model  2000  to enable faculty to engage with eLearning

7. Rashty  Delivery Systems Model  1999  mode of delivery mechanisms of eLearning

The above table shows that major focus of researchers was on addressing issues relating to pedagogy, technology, learning experiments, delivery mechanisms etc. Most of the issues were addressed in view point of student / learner and very less on faculty or other components of e-learning.

Literature reviewed few online programs for teachers as well. Shoma, VHS Tchr dev., moneterrey – online only, TeachScape, LessionLab, ProInfo/LEC were few examples mentioned by Joanne Capper, World bank consultant. In his comparative study of various educational technologies with respect to benefits, limitations, evidence of effectiveness and cost revealed that Internet is highly interactive technology than radio, TV, computers etc. He suggested management to not to ignore increasing workload of teachers. [f1]

E-learning grew rapidly focusing on effectiveness of learning. Literature addressed issues more with respect to individual stakeholder viz. students, teachers, policy makers, design and quality of programs etc. The need for evaluation of such programs was also addressed through the literature.

Dr. Bradul Khan (2004) suggested institutes investing heavily in online programs to use a comprehensive review system to understand whether deployed programs accomplished the desired results. In this context he developed P3 (People-Process-Product) Continuum model to understand comprehensive picture of 3Ps of model in online environment and critical issues involved in its various dimensions. Further he developed a model CAPEODL to evaluate online programs. He developed an e-learning framework for evaluation with eight dimensions viz. pedagogical, technological, interface design, evaluation, management, resource support, ethical and institutional.

The need mentioned by Dr. Khan in 2004 was again addressed in 2010 by Dr. P. Nagrajan et. el. According to him although e-learning is a buzz word and familiar to all, educational institutions lack in having knowledge and experience about three main activities of online education system viz. design, implementation and proper post-implementation assessment. E-learning provides cost effective just-in-time training methods to organizations to educate and train their internal and external stakeholders but there needs a system that would synchronize all aspects of online education.

Management education with dynamic skill sets is in demand today. At one side conventional / traditional education system is becoming monotonous, students demand quality education leading to need for innovative methods of teaching and learning to satisfy students and fulfill industry demands of skilled HR. Efficiency of management institutions lies in diagnosing problem areas, identifying new ways of means with appropriate mapping of needs and resources not only in core teaching and learning but overall operations of educational institute with synthesized approach. E-learning may fit the bell to bridge the gap of typical issues and challenges of on-campus traditional courses.

Efficiency of management institutions would be improved by delivering quality education, concurrent assessment and evaluation of students, enriched industry interface. The cost effective and result oriented system providing online real-time tracking on a single click would contribute to revise the designed programs of education to match with contemporary needs of learning environment and corporate world. The readiness, willingness and feasibility of management institutions in adapting different e-learning practices need to be studied to set a particular system.
RESEARCH METHODOLOGY

With a view to fulfill the objectives a field survey of 5 select Management Institutions in Pune was undertaken during the period January - February 2017. The core part of this study is based on interview, discussions, interactions with stakeholders of these institutions which include 250 students, 50 Teaching faculty, 5 system administrators, and 5 Directors.

The data was collected with an objective to get firsthand information from target respondents mainly focusing on their awareness, perception, problems, and difficulties in making efforts towards getting envisaged success of e-learning practices.

RESULTS/FINDINGS

The study was intended to find what are different e-learning practices used by select management institutions. In the context of this study e-learning is not restricted to a particular online course, but it was tried to explore what different technology enabled applications / tools are used for academic and non-academic processes of management institutes. It included non-academic processes viz. enquiry of the course, admission for the course, payment of fees, resolution of queries, library functions viz. attendance, circulation of books and media, searching availability of material, paying fines, booking reservation for books, receiving notifications and replies to queries, accessing e-journals, complaint entries for technical support etc. The academic processes considered again in two sub-categories, the administrative process relating to academics and teaching & learning practices. The administrative processes relating to academics broadly include sending notifications to students regarding time tables, schedules, activities, events, sharing notes and assignments, discussion with faculties and peers for queries, exchanging attendance status, results etc. The teaching pedagogy, lecture delivery and content were considered relating to teaching and learning practices viz. the mode of conduct whether only in classroom or supported with blended learning methods, online real-time lectures, discussions, interactions with experts, use of PPTs, videos, audios, self-recorded sessions, others’ recorded sessions, use of LMS, use of audio-visual facilities, multimedia facilities etc. In addition to this the mode of examination, frequency of online activities were also considered.

RESEARCH QUESTIONS

The main focus was to understand what are the perceptions and expectations of the stakeholders. Is there sufficient infrastructure available to fulfill the expectations? In this scenario what is the current status of selected management institutions.

The results are as follows

1. Do management institutes have adequate infrastructure to implement e-learning system?

   The typical infrastructure required for use of e-learning practices is firstly hardware, networking, sufficient PCs etc. in addition to that availability of internet with good speed all the time, tools and applications to provide online access to library resources, notifications, maintaining online repository of lectures, tools to interact with and among the stakeholders including parents, corporate experts etc. There requires appropriate facilities to conduct online examinations, and developing content for self-paced study. The technical support plays vital role in maintenance of this infrastructure.

   The questions were asked to Directors regarding the strategies, policies and overall code of conduct of the course. System Administrators provided details of IT infrastructure. The interaction with students and faculty members helped to find their satisfaction level of available IT resources. The selected management institutions run the courses affiliated to Savitribai Phule Pune University and recognized by AICTE. It is mandatory for all the institutes to maintain infrastructure according to norms. According to norms PCs, Internet, networking etc. need to be maintained with specified ratio of students’ intake. This ratio is defined as per the need of contemporary educational practices. Therefore institutes are ready with respect to available minimum infrastructure. There might need additional investment based on selection of tools and
technologies to deploy e-learning practices as per technical specifications of the same. More than 75% of Faculty members and students are satisfied with speed and availability of internet, technical support, online examination facilities etc. However they would like to have improvement in quality of audio / video files, more interactive online facilities for extra-curricular activities. More than 80% of faculty members would like to have e-platforms to interact with parents.

2. What are the perceptions and expectations of teachers, students and head of the institutes about use of e-learning in management education?

The stakeholders interviewed belonged to on-campus courses of management institutions. In this context the following are perceptions and expectations of the respective stakeholders:

a) **Students**: 92% of students are aware about e-learning concepts that they perceive e-learning as supporting learning activities for on-campus courses with main emphasize on internet-based activities to access anytime anywhere and for self-paced learning for revisions and additional knowledge gaining. Students disagreed for 100% replacement of classroom lectures by online courses and even for purely online exams. More than 65% students expressed desire for online sessions of industry experts, digital library access during the sessions and anywhere, third party value addition certificate courses. Thus students expect blend of online activities and face-to-face interactions in their academics.

b) **Teachers / Faculty members**: More than 50% of faculty members are aware about e-learning and perceive it as courses using different e-medias for distance education. Hardly 20% of faculty members perceive e-learning for on-campus courses and classroom lectures. More than 72% of faculty members accepted that only classroom lectures become monotonous. More than 57% of faculty members rejected to use purely online methods for lectures, exams and query resolutions. However more than 80% of faculty members expressed need for improved industry interface (feasible with online platforms), access to digital library and third party value addition certificates with e-learning. 72% of faculty members would like to offer e-learning course to students to add value to domain knowledge of existing subject / course.

c) **Heads of the Institutes (designation ‘Director’)**: Most of the heads agreed that awareness level of institute regarding e-learning is high. The institutes intent to deploy e-learning practices but there are no specific policies, budgets, strategies for the same. Right now they are not going beyond prescribed norms of governing bodies. Heads expressed need for strategic and systematic approach to design and develop systems for deploying e-learning practices.

3. What is the status of current e-learning practices at select management institutes?

The e-learning practices treated here for different levels based on asynchronous and synchronous use, interactivity, and accessibility of resources anytime anywhere. Asynchronous viz. email, SMS like tools would send one way information may lack in immediate response, tracking etc. In case of synchronous methods real-time, live interactions become feasible, tracking is also feasible. Anytime anywhere accessibility is feasible with internet-based application or internet technologies. Although adequate infrastructure is available still most of the activities of non-academic processes happen without e-learning practices. Typical conventional methods get used mainly for payment of fees, solving queries online, library related activities, display of notices and sending notifications viz. time tables etc. The use of email is at high level but mainly used to send and receive notifications. There is lack of tools and technologies that are convenient to tracking and mapping of educational activities and to provide on-click analytics of performance of all related activities.

**GENERAL FINDINGS**

1. It was observed that in non-academic practices institutions are using e-learning tools at an elementary level for on-campus functions in spite of having adequate infrastructure.

2. In academic practices barring use of website, mobile application which is at optimum level the rest of activities including making students informed about specific instructions, or other important
communication still the contemporary methods like putting hard copy notices on noticeboard, or at the most sending emails are used at elementary level.

3. The use of Internet is very low in sending e-notifications for students either for academic or non-academic purposes.

4. The overall satisfaction level of students about institute's website is average.

5. Faculty still prefer to deliver lectures in classroom than opting for either online, videoconferencing or discussions through social media which is very rarely practiced or at elementary level.

6. Faculty members still have an ambiguity about using various means of e-learning tools.

7. There are no qualified System administrators employed; in case of most of the institutes the charge is given to technical assistants or lab-in-charge. This solves problem of typical maintenance of infrastructure but lacks in designing innovative e-learning programs to improve overall efficiency of the institute.

8. Directors felt the need for more delegated powers in executing various responsibilities towards application of e-learning tools, various equipments purchasing, training to faculty, system administrators. Directors expressed their views as there is a need to set appropriate system of e-learning with focused efforts and systematic approach exclusively to improve the performance of the institute.

9. In general, a wholehearted support and participation at all levels of the institutions including all stakeholders is extremely necessary.

CONCLUSION

The potential success of e-learning lies not only in using internet based technology and other tools but in how all stakeholders are actively involved in making e-learning practices efficient. Faculty especially, need to be thoughtful about how to maximize the opportunity for students to become active learners who will be empowered to take charge of their own future through own learning based on e-learning. The efficiency of management institute would be improved if time and cost saved in day-to-day administrative operations and tracking of students' performance. Automated systems would save operational time and availability of analytical information for further decision making and revisions in the existing system. This needs a holistic approach to assess and identify status of e-learning practices in institutes to determine overall efficiency of the operations and programs.

More quantitative and qualitative research needs to be undertaken to identify how e-learning models can be developed so as to fetch more benefits and overall performance of these institutions.

FUTURE STUDY

The study was limited to selected five institutes. The same study on large scale would help to gain more insights about issues, problems, challenges and opportunities in the field. The exclusive study to evaluate e-learning system as a whole is needed.

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