



## Ensuring Quality by Utilizing ICT for Reforms in Management Education through ODL in India

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### ABSTRACT :

Management education market has expanded enormously across the world. Business Schools in general and Open University Management Schools in particular have been at the forefront of introducing the use of Information and Communication Technologies (ICT) into knowledge dissemination. Technology enabled management education facilitates change in the curricula and delivery systems so as to prepare managers with an edge to face the challenge occurring due to globally turbulent environment.

Most business school programs are designed around a model that involves presentation of theory and best practice with delivery of courses aimed at meeting the needs of individual students and corporate. Through the increased use of ICT some of these ambitions may be further fulfilled. However, there are evidences that business schools are recognizing the need to use new technologies, as yet only few are developing teaching through ICT and Multimedia. The pressure on business schools to make more effective use of ICT in teaching methodologies is now apparent. Management education and ICT has to make a symbiotic relationship for achieving brilliance. ICT familiarity, even creativity in its future use, is an essential managerial skill at all levels of management. Schools of Management Studies in ODL institutions are focusing today to avail maximum advantage of ICT while imparting knowledge and establishing learning processes.

In India IGNOU and State Open University's - School of Management Studies (SOMS) and Distance Learning Centers has made commendable efforts in making an access to management education for all. The present public image of availability of management education for elite has been weakened due to the reach of the university to the masses. However, the resources and infrastructure availability of this kind of set up are different as compared to well established Schools. The threats for management education through distance mode of learning may suitably be converted into opportunities by using technological advances and media mix to strengthen management education in developing societies.

Keywords: Information and Communication Technology (ICT), Open and Distance Learning (ODL), School of Management Studies (SOMS), Knowledge Dissemination.

### 1. INTRODUCTION :

We in India are not facing the problems of poverty, low production, low level of per capita income or GNP.

The real problem is that we are not adequately and professionally managed country.

Most of our corporate and service sector organizations are either under-managed or unmanaged. Therefore, what we need is managerialization of all the institutions in our eco-socio system. This requires a large number of professionally qualified managers. In our society there is a need of management education for all. The growing demand of managers in various segments of economy may not meet only through campus centric management education. Through open and distance learning equipped with advent of modern information technology we may develop a cadre of qualified managers who may accept the challenge to solve most of grave problems of the country.

With the liberalization, privatization, and globalization (LPG) of economy, we are in the transformation process from being a technically backward country towards being at par with rest of the world in the 21st century. The transitional phase has thrown up many challenges and opportunities which need to be exploited and managed to restructure the education system in general and management education in specific for a brighter future. The strengths of IT advancements can be harnessed for reframing the management education so as to reach the masses in an effective manner.

## 2. THE NEED

To accomplish the targets of rapid economic growth, India needs trained and professional managers. At present a sizable number of students in the country are acquiring management education through campus centric institutions. The term 'management education' refers to the process of imparting concepts, skills and competencies to learners, which are essential to perform the task of managing.

Till 20th Century management education in the country was restricted to elite class students who undergone convent education and belong to higher or upper-middle class families.

However, it is not fair to restrict management education only to a few intelligent and privileged incumbents. Ordinary people do not have easy access to this stream of education, which is arrested in ivory towers. In wake of technological advancement it is possible to make management education accessible to one and all and particularly to restrict groups e.g. students living in geographically difficult terrains, rural areas, minorities physically challenged, women, backward castes and tribes.

In NPE (1986) the Government of India came with a slogan "education for all". On the similar lines we may aspire that management education should be accessible to all entrepreneurs, small-scale industrialists, traders, marketers, housewives and people belonging to the downtrodden layer of the society. To make rational use of scarce resources and to keep pace with developed societies, it is essential for the country, that people should have the knowledge and skills of management discipline. Therefore it is worthwhile to know how it is possible to offer this stream of education to down trodden unreached segments of the society.

## 3. LITERATURE REVIEW

After 90's a growing interest was noticed on quality of education by utilizing ICT (West-Burnham 1992, Sallis 1993, Green 1994, Harvey and Knight 1996-1998, Kanji et al 1999, Srikanthan 2004, Guellali 2008, Sahney et al. 2008, Asif et al. 2013, Randheer 2015). These researches shown concern for quality of higher education across the institutions and modes of learning. Despite all efforts 'Quality remains a vague concept (Cheng and Tam 1997, Kidney et al. 2007). Shashi Singhal et al. (2015) conducted study on "Quality Education: Exploration and the Interrelationship between the Dimensions from Stakeholder's Perspective".

#### 4. ROLE OF MEDIA IN MANAGEMENT EDUCATION

Media mix transport information in several forms from one point to another in different forms. Technology has enabled us that these points could be situated within one room, within a town or a country or located anywhere in the world. The forms of information could be text, audio or video (still or moving). And the terminal could be fixed or mobile, projection screen or television tube, notebook computer or PC.

Management education in India must be focused with the aim to share responsibility for bringing about a transformation in the "eco-socio" milieu in the country by producing change agents in the form of globally competent and competitive managers. To achieve this, management education has to have a symbiotic interface with ICT and its application to the teaching in the form of educational technology.

The aids for knowledge sharing in Business Schools (B-Schools) has progressed from classroom tools like slide, overhead and LCD projectors to distance education tools like audio and video tapes, radio and television broadcasts, cable T.V., mobile learning, virtual class rooms through satellite and video conferencing, floppy diskettes and CD-ROMs for large capacity data storage, networking via ERNET and INTERNET and a futuristic concept of bringing satellite channels directly to home by DTH service. This paper aims to answer the research question that how the use of ICT may enable quality of Management Education through Open and Distance Learning?

#### 5. ICT vis-a-vis MANAGEMENT EDUCATION

In most of the Business Schools, teaching aids like slide, overhead and LCD projectors are being used to deliver knowledge and information. In ODL various other tools like

video conferencing through satellite, Direct to Home(DTH), WIFI, Digital Libraries, audio-visual Compact Disks(CD's), Digital Versatile Disks (DVD's), broadcast on radio and teleconferencing, Pen drives and Thumb Drives, networking via ERNET, Online Groups, Communities, Social network, network, Internet, digital cameras, handheld computers, applications, computer mediated conferencing m-learning etc. may be used in a big way to impart management education to unreached segments.

Different computer machines and the latest high end Business Phones and Tablets which are equipped with 4G Technology play a useful role in creating teaching learning process more effective. Through multimedia various type of information such as clip art, animation, graphics, music, voice, video and live interaction make the delivery system more lively and effective.

#### 6. TECHNOLOGIES IN USE

Different forms of technologies are in use in classrooms in general and particularly in B-Schools. Among these few prominent are:

*Computer:* Having a computer in the classroom is an added advantage to faculty. With a desktop in the classroom, faculties can exhibit a new concept, present new material, demonstrate how to use new programs and show websites which have relevant information.

*Streaming at 4G Speeds:* Streaming videos or using Education Satellites can make the Management Education more effective. All business schools will not be very fortunate to get some highly reputed resource persons to their campuses. With the help of DTH Streaming Technology and Education Satellites resource persons can impart instructions and knowledge at one single venue and can interact with thousands of students across the countries at any given point of time.

**LCD Projector:** With the help of LCD Projector faculties in B-Schools make students understand the difficult concepts very easily. The teacher can make colorful presentations by using Microsoft Power Point for presentations. Faculties can use both video and audio in their presentations and can make the teaching and learning process more interesting by sharing success stories of top Business people, graphics, U Tubes etc.

**Smart Boards:** The Smart Board is an interactive whiteboard that uses touch detection for user input. The interactive personality of the Smart Board offers many practical uses for the modern day management education classrooms. Using Smart Notebook Software, faculties can record each step which they are doing on the board at real time for students to review later on time. The Smart Board is contented with programs available on the computers used in the classrooms.

**Website Dedicated to Class:** A Simple way to present student's work is to create a web page intended for the class. Once a web page is designed, faculties can post marks of homework assignments, information on extracurricular and co-curricular activities and other activities of the student. Today attendance, progress of the students, remarks, grades etc. are also updated on the website.

**Online Groups:** With the help of online groups like Google groups' and Yahoo groups' students can exchange ideas, share notes, thoughts, assignments, circulars can also be sent online which can also provide students an opportunity to comment and reflect. Once students' E-Mail ID's are registered, the moderator can manage the activities of the group and can assign privileges to the selected people who can edit, publish, share or comment within the group.

**Smart Phone Devices:** Handheld Pocket Mobile devices such as clickers and other popular applications can be used inside classrooms by providing opportunity for the faculties to get immediate feedback about the topic which they are handling on a particular session and whether the learners have understood the concept or not? These mobile devices can also be used to access performance of the faculty and can help the management in making decisions on incentives or increments based on student's feedback.

**Electronic Libraries:** The impact of IT on libraries of top business schools will be drastic. Computer applications in library and information raise the efficiency of the day to day library work. Instead of books, we are having optical disks which could be used wherever they want through a small portable electronic reader. With the help of Electronic Libraries, student can refer to their academics and assignments by using Encyclopedia like Wikipedia, Google etc. They can extract the information which they are searching from these resources.

**MOOCs:** MOOC is a course of study made available over the Internet without charge to a very large number and variety of people. Anyone who decides to take a MOOC simply logs on to the website and signs up. In addition to traditional course materials such as videos, readings and problem sets, MOOCs provide interactive user forums that help build a community for the stakeholders. MOOCs are a recent development in ODL.

**Cloud Computing:** This involves accessing and storing data over Internet instead of computer's hard drive. The cloud is just a metaphor for the Internet. Cloud based E- Learning is suitable for delivering sound and flexible education, because deployment of the system can be done very fast with minimum cost; it also lessen the burden of maintenance and support from the educator institutions.

### 7. ICT AND LEARNING PROCESS

The spirit of the knowledge society is the establishment, dispersion, internalization and application of knowledge. These are learning actions and their vital significance led many to realize that in order to thrive in the knowledge era countries, firms and individuals must move into a mode of constant education. Advances in technology create new avenues for variety, individualization and access methodologies. Information and Communication Technology is a potentially influential tool for extending educational opportunities, both formal and non-formal to subsequently underserved constituency-spread and rural population groups which are traditionally expelled from education due to cultural and social reasons.

With the advent of World Wide Web, learning resources in almost every discipline and in a diversity of media can now be accessed from any place, any time of the day by any number of people across the globe. This is mostly important for many Business Schools. IT also facilitates access to experts in various fields, resource persons, scholars, mentors, researchers, business leaders, professionals and peers all over the world.

Student Learning Process will not be effective without the help of ICT, because in modern world time is money. Information Technology helps us to save a lot of time because of its speed, reliability and consistency. If we still follow the traditional methods in management teaching without using any techniques or modern ways that are at our disposal, the approach which the future managers would take to solve the corporate level problems will be less efficient than by the managers who use IT during impart of management education.

The reasons for many people attracted towards higher education and doctoral program in management studies overseas

like in United States of America, United Kingdom, Australia, Canada, Singapore etc. is not only because of the reputation of their universities but because of the absence in technology oriented modern educational systems in developing countries. Only some fortunate B-Schools in India are equipped with ultra modern IT and ICTs which are at par with what is being used in Universities like Harvard, Stanford, Oxford or Cambridge. So when there is inadequate ICT in education, the teaching and learning process will not be the same with those institutions which are equipped with the high end state of art technologies.

The ever growing demand for management education, change in nature of business and industry within the newly created borderless market environment, and the revolution in information technology provides an opportunity to change the curricula and delivery system of management education so as to provide prospective managers an edge to successfully face the challenge in globally competitive setting. Therefore, management education and ICT has to develop a symbiotic relationship for achieving excellence.

Our B-Schools are using multi technologies in imparting management education. At the one end, some premier institutions are having access to all facilities in term of educational technology such as multimedia system, LAN; WAN and World Wide Web and on the other hand, a large number of B-Schools are still depending only on stereotyped lecture method in imparting knowledge. Therefore, the existence of technology gap provides an opportunity to use ICT supported education technologies for better delivery of education, easier access to a number of knowledge sources, sharing through networks and quality distance learning in management education.

In majority of business schools, information and knowledge are delivered by utilizing conventional methods. However, in distance mode of learning modern multimedia technologies may be used for the benefit of all major stakeholders. With access to Internet, the learners have a reach to an unrestricted pool of knowledge, through web television at their home. Hence the homes will come to harbor the "Virtual" classroom. With the help of broadcast T.V. the best available professionals, emeritus professors and functional specialists can interact directly to a large number of learners. In remote areas where networking is not available or may not prove cost effective CD-ROMs run on a multimedia PC and mobile learning are treated to be the best option of taking business education. Huge information, data, figures, pictorials, documents, graphics may be stored within them along with audio and video effect. Further internet communication is a very useful medium of imparting knowledge as class room situations may be created at home with the access of E-mail and web browsing on the World Wide Web which is now commonly available due to launch of web television and fast internet access.

Use of computer facilitated learning material through multimedia facilitated integration of various types of information such as clipart, animation, graphics, music, voice, live interactions that makes the delivery effective. Digital multimedia have made T.V. interactive, It has elevated its functionality to information delivery and education. The consumers of this information have a choice to call for information they need. A selected program can be viewed at the convenience of the viewers and not when relayed. Multimedia computer can be used for training on management education in one-to-one situation with the receiver. Multimedia system is treated to be more learner friendly as compared to television,

as it enables to control the response of instruction transfer process according to the pace of the learner's grasping capacity and preference so as to enable purposive and situation specific interface with available information package. This creates an identical condition to the classroom on computer monitor without engaging a teacher and the given package can be browsed again and again by the learner to match with his own learning process. In management discipline students come with better background. Computer based learning provides them an opportunity for self growth rather than being taught which stimulates them as they themselves make an appraisal of their achievements during the learning process. On the other hand, teachers may also concentrate on development and research related activities, as they are relieved from routine and monotonous tasks such as tasking, drill, practice and sharing of information. Hence, the new system reduces dependence on conventional infrastructure and avoids wastage of time to assemble in a class room.

It is widely acknowledged that multimedia technologies have some relative advantages as compared to conventional mode of information sharing. This generates the need for computer, which is not only useful in sharing knowledge but also imbibes skills required in a prospective manager. In B-Schools case studies, workshop, project work, business games etc. supplements conceptual learning. To develop the ability to apply knowledge in real life and hypothetical situation different software are developed. Now-a-days most of the management literature is also published on CD ROMs to enable visual effect to printed material.

## 8.OBJECTIVES

The present paper has four fold objectives:

- To analyze the impact of ICT on quality of management education through ODL.
- To find the most popular and frequently used ICT tools in management education.
- To explore the benefits of use of latest ICT tools to different stakeholders associated with management education.
- To examine modern communication methods in management teaching and learning.

## 9.REACHING THE UNDERSERVED THROUGH ODL

ICT helped in improving distance education for management program. With advanced communication technology, teaching learning process become faster, non-conventional and interesting. Distance education is the forerunner in exploiting the potential of information technology so as to reach the learners, teach them, especially in the third world countries like India.

Distance Education acts as a social catalyst in emerging countries and supports the objectivist model of knowledge transmission. Peters has observed important features of distance education: first, the use of multimedia; second, the mass education of students at a distance; and third, the industrialization of teaching process. It is felt that distance education must adapt new technology tailored to individual learner within the Indian environment. However, the technology should be cost-effective, interactive and innovative.

During last 20 years the Open University system has shown substantial growth and development, both quantitative and qualitative. At present there are fourteen open universities in the country including the Indira Gandhi National Open University (IGNOU).

Most of them are offering management education. IGNOU is the fastest growing education system in the world. With over three million students, more than 228 programs comprising over six hundred courses. It is the largest university in the world as declared in recently concluded summit of vice-chancellors at Shanghai in China. The cataclysmic changes taking place in the telecom and IT sector are being increasingly absorbed by the university and now it plans to install VSAT based terminal across the country. In an attempt to implement an interactive ETV for distance learning program for management, the IGNOU has conducted teleconferences for distance mode students, counselors, regional directors and supporting staff of the university.

The interactive network system has three basic components viz.:

- The teaching end,
- The receiving end, and
- The space craft.

In addition to IGNOU, some other experiments have taken place in India on educational teleconferencing, such as ISRO- UGC National Talk – Back Experiment 1991, INDO-US sub commission project; classroom 2000+, 1993: CEC-ISRO-UGC-IGNOU teleconference, 1994; NOS- DECU- ISRO talk back experiment, 1996. These experiments were conducted to appreciate both way interactions in distance learning.

Looking into the above backdrop, the impact of multimedia technology is appreciable in ODL and more particularly to appreciate the effect on distance education for management discipline. The perceived influence is as follows:

- The teacher and learner of management education are not required to assemble in a classroom. There are no regular classes in peer group interaction.

- It has no time and space limitation. Learners are not required to complete the entire course in a given time frame. Likewise the pace of learning may be decided by the student at his own. Further no campus infrastructure is needed.
- Digital or electronic library may reach to the learner without physical boundary. Integrated library with online multimedia support can solve problems of students.
- Various packages such as 'INFOLINE' for general information. 'ADVANCE' for advice to students. 'CHOICELINE' for choice of subject. 'LIBLINE' for library holdings and 'EXAMLINe' for date-sheet of term- end examination and related information may be developed for achieving excellence in management education thought distance mode. These packages can be made available to the management and other students at university home pages on the web site.
- There is a growing trend that more and more management institutes are launching their distance education program. They may use Internet by launching their web sites to reach to the students who are having access to Internet.
- Toll free telephone counseling may be organized by arranging a counter for answering student queries. Students may be given this facility free of charge by dialing a certain code during pre-decided counseling hours. When connected through computer they may ask immediate clarifications through the network.
- Initially for the assignments and later for the term end examinations traditional examination system may be replaced through on-line computer examination and assessment system.

#### 10. ICT BASED EDUCATION FOR PROSPECTIVE MANAGERS

With the advent of the new millennium Internet based computer hardware and software most of the B- Schools in India are now plentifully supplied with PCs, notebooks, hand held computers and related technologies. However, most of the machines are underutilized. After earning degree in management, majority of the students aspire for employment in industry, commerce and service sector. Employers in these areas with their prospective managers should not only qualify in different functional areas of management but also possess necessary knowledge regarding popular software packages, application programming and also understanding about how the PCs may be used optimally at their placement situation.

It is suggested that initially an exposure of basic concepts of hardware and software, word processing, spreadsheets, data base, Network and Internet need to be given. Simultaneously, students are encouraged to solve real life problem with the help of spread and data base packages for those who wish to make advance use of computers, knowledge of data and file structure, Unix operating system and programming methodology

By using computer languages C, C++, or Visual C++ and application of programming in numerical analysis and computational techniques may be given. The purpose is to enable the prospective managers to develop knowledge of computers and skill building for better placement. In employment market demand exists and likely to grow for those who are ICT literate. Knowledge of web technology (particularly Java application and E-Commerce) and programming in COBOL will be other desirable qualifications.



## SHARMA

There exists a common feeling among different stakeholders that IT literacy of management students may provide four benefits:

- The technologies that are learnt can be applied directly to useful ends.
- The skills, which are sharpened, may increase analytical abilities, insight and creativity in problem-solving competence of the students.
- Managers who are computer literate will feel at ease in the new millennium of innovation, vision and cybernetics.
- Lucrative placement opportunities for the IT educated managers.

### 11. REFORMS IN BUSINESS EDUCATION

We must prepare students in Business Schools with proactive approach. Different universities are competing in the field of management education to give the best outbound knowledge to the students by integrating latest technologies. Along with cutting edge technology, virtual libraries, tying with industries and involving students in live projects in corporate through internships, assignments and project works are used by different B Schools.

Virtual universities are the future for education. We might no longer have printed books or journals in the libraries. All the books will be converted into soft copies and will be made available online. The access to the websites will be given to students freely or on the basis of some nominal fee. Examinations will also be conducted online in near future. This will also make the process of evaluation easier.

Students of future Business Schools might not even have to come to a regular classroom and campus to get their degrees. With emergence of virtual universities, students will be able to study the content of the syllabus and other academic related activities through lectures which will be in the form of videos.

It is debatable whether this kind of education will effectively replace the conventional education imparted in a class room by a teacher. What the future has in store for us is a surprise and the speed at which ICT is evolving is unimaginable. The purpose of using technology is to make the things simpler as a result it will save lot of time, money and efforts. We can only dream about the future and have to wait for the vision to come true. We studied in a typical classroom centric campus. With the advancement in Artificial Intelligent, a faculty might even be replaced with a robot in the distant future. Only time will give us answers on how our future generations would study and earn their degrees.

### 12. CONCLUSION

To make optimum use of scarce resources, spread of management knowledge is essential. A number of initiatives took place recently to make management education cost effective and available to all. Through Internet and Multimedia Technology, campus centric management education may be imparted through virtual classrooms, simulated labs, MOOCs, Cloud Computing and interactive hypermedia.

Since ICT offers immense pedagogical benefits it is used as a tool for supporting a style of learning by various open universities. ICT fosters interaction and collaboration among students; consequently, it improves learning skills.

With ICT, we can train and develop a new breed of managers who may solve most of grave problems of mankind in a short span of time with practical and realistic solutions. There is no limit for imaginations of human beings, so there is no limit for the technological advancements that could happen, especially in the field of management education.

The future managers will definitely look into the future corporate problems in a broader canvas and solve them faster and efficiently by using technologies which are available at their disposal within very short time. The strengths of ICT advancements can be harnessed for re-framing the management education for all and for underprivileged in particular.

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