

# Exploring the Factors Considered for ICT Acceptance and Adoption towards Education (B-Schools)

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## ABSTRACT

The rapid growth in ICT have brought remarkable changes in the twenty-first century, as well as affected the demands of modern societies. ICT is becoming increasingly important in our daily lives and in our educational system. Therefore, there is a growing demand of educational institutions to use ICT to teach the skills and knowledge students need for the twenty first century. The new digital ICTs are not single technologies but combinations of hardware, software, media and delivery systems. Today ICT in education encompasses a great range of rapidly evolving technologies such as desktop, digital cameras, local area networking, the Internet, World Wide Web, CD-ROMs and DVDs and applications such as word processors, spreadsheets, tutorials, simulations, electronic mail (email), digital libraries, computer-mediated conferencing, video conferencing and virtual reality. The present research paper is to examine the factors that are facilitating acceptability and adoption of Information and Communications Technology (ICT) towards education of B-Schools in India.

**Keywords :** ICT, Online Education, B-School, Research, Management

## I. INTRODUCTION

The bloom in Information Communication Technology (ICT) developed the practice of not only business, management, education sector but become prominent in all dimensions of human life. Human behavior is to acquire knowledge and impart this knowledge to others. Transfer of knowledge which is among the most basic requirement has become the achievements of human beings and helped them in social development as well. The ways of acquiring knowledge has become the matter of concern primarily in this regard. In the traditional methods of teaching notebooks, pencils, and blackboard were of primarily concern which has been transformed to an online way of teaching using the forum of computers, software and the Internet frighten many teachers who are usual to the ways of the traditional methods of teaching. For many students who find it difficult to come to campus due to employment, family responsibilities, health issues, and other time constraints, online education is the only option.

ICT is providing more alternative pathways of acquiring knowledge fostering the individual needs; pressure has been increased on educational institutions to opt various techniques to improve the quality of teaching and learning. Tinio further states the potentials of ICT as follows: "ICT helps in the acquisition of quality knowledge, providing the developed and developing countries unprecedented opportunities to improve the educational systems, improve the policy formulation and execution of the various policies formed and widen the range of opportunities for business as well."

### Need for Adoption of ICT on Education

The 21<sup>st</sup> Century E-learning, facilitated and supported through the utilization of Information and Communications Technology (ICT), viz. Internet, computer, mobile phone and video, to support teaching and learning activities has subsequent to the ICT revolution, given rise to a knowledge society and a learning economy wherein the capability to learn how to create new knowledge and adapt to changing conditions determines the performance of individuals, institutions, regions and countries. This has fuelled the demand for ICT both at organizational and educational sector.

Management being an eclectic and inter-disciplinary subject, the profession demands that B-school students must be very well-versed in a variety of subject domains, which is possible only with the help of ICT. The present research paper shall be a serious endeavor to study the levels of adoption, motivation and usage habits of ICT (Information and Communications Technology) by B-School students.

## II. Review of Literature

**Saxena and Kumar (2014)** measured Pupil-Teachers attitudes and Psychological Readiness regarding the use of mobile learning in Teaching-Learning process due to the increasing global demands towards the integration of mobile technology in teaching-learning process. This paper reports on the results of a study of two hundred students of G.G.S.I.P. University about their attitude and psychological readiness regarding the use of mobile technology in education. Results of this study clearly indicate that offering mobile learning could be our method for improving retention of pupil-teachers by enhancing their teaching/learning. The main aim of this research study is to better understand and measure Pupil-teachers attitudes and Psychological Readiness regarding the use of mobile learning in Teaching-Learning process.

**Ssegawa and Kasule (2015)** explained the purpose of this paper is to report the perceptions of students taking the Master of Project Management Programme at the University of Botswana regarding their transformative experience called “prayer”. The results of the study indicated that “prayer” provided students ingredients of transformative learning. It also proved to be a worthwhile technique for inculcating some of the graduate attributes articulated by this university and for incorporating adult learning principles. There is a possibility that the technique can be extended to other disciplines such as business administration where students examine cases in the public domain to illustrate concepts learnt in class. This is because the learning activity described engages student’s simultaneously in research, review, presentation and communication as well as reflection, collaborative discourse and self and peer assessment.

**Bindu (2016)** revealed that the ICT has made tremendous changes in the present day world. The advent of ICT in education helped to improve the quality

of education where teaching and learning eventually became an engaging active process related to real life. This study intends to collate the findings from a review of an array of available literature related to the impact of ICT on education. The present literature review gives an over view of the use of ICTs in the field of education focusing on its impact on teaching learning process, quality and accessibility of education, motivating learners, learning environment and student’s academic performance.

**Ubulom et al. (2016)** examined the impact of ICT on Business studies student’s academic performance in Upper Basic Education in Tai Local Government Area of Rivers State. The population of the study comprised of all Junior Secondary School in Tai Local Government Area with sample size of 300. Analysis of the data revealed that ICT has tremendous impact on Business Studies Students’ academic performance. It was recommended that the use of ICT as instructional media bridged the gap between teachers. It was also recommended that ICT has changed teachers and students’ perception about visualizing real world application of course concepts, documenting memories and recording of information.

**Bankole and Mimbi (2017)** discussed how ICTs can make a difference in climate, political, health disturbances and business environment require a multidisciplinary approach which demand contributions from IS community, the private sector, development agencies, practitioner and other academia. This study served as a response to the call for more macro/micro level policy research on the role of ICT on national development. The paper reviews the previous research in this domain and proposes a research direction for macro/micro level impact of ICT on national development on the Africa continent. The emphases should be directed towards people-centric approaches to technology through human capability. The focus is on technology usage and the extent to which it affects or helps members of the society achieve their developmental objectives.

## III. Research Objective

To examine the factors impeding and facilitating acceptability and adoption of Information and Communications Technology (ICT) towards enabling quality management education in India.

#### IV. Formulation of Hypotheses

Following hypotheses has been framed to realize the above mentioned objective:

**H<sub>01</sub>:** There is no significant difference among respondent opinion (across various demographic categories) regarding Indian Management Education Sector is presently undergoing a transitional period; with increasing demand, mushrooming growth of substandard B-Schools, demand-supply mismatch and poor quality of education in the absence of effective regulation/accreditation.

**H<sub>02</sub>:** There is no significant difference among respondent opinion (across various demographic categories) regarding Management Education being eclectic/interdisciplinary in nature requires that B-Schools impart relevant, current and cutting-edge knowledge to the students, which could not be possible without incorporating ICT in the curriculum and pedagogy.

**H<sub>03</sub>:** There is no significant difference among respondent opinion (across various demographic categories) regarding the quality of ICT infrastructure is poor in a large number of B-Schools due to absence of trained IT Staff, Connectivity Issues and Lack of Investments, adversely affecting the student learning outcome and placement performance in a B-School.

**H<sub>04</sub>:** There is no significant difference among respondent opinion (across various demographic categories) regarding significant disparity in ICT usage among B-Schools in big metropolitan cities and those in small towns in the hinterland, adversely affecting the student learning outcome and placement performance in a B-School.

**H<sub>05</sub>:** There is no significant difference among respondent opinion (across various demographic categories) regarding Distance Learning delivered through ICT (e.g. Massive Open Online Courses) helps people who would otherwise be denied acquire quality education at par with regular classroom teaching and is getting popular among the working professionals.

**H<sub>06</sub>:** There is no significant difference among respondent opinion (across various demographic categories) regarding ICT-enabled LDPs (Long Duration Programmes) conducted by elite B-Schools (like IIM Calcutta); being low-cost, long-distance and flexi-time in nature are getting popular among the working professionals to whose needs they are tailored.

**H<sub>07</sub>:** There is no significant difference among respondent opinion (across various demographic categories) regarding ICT-enabled LDPs serve the needs of those constrained financially or in terms of time/distance by opening promising career avenues which would otherwise remain closed to a large section of the 'eager but unable'.

**H<sub>08</sub>:** There is no significant difference among respondent opinion (across various demographic categories) regarding HEIs (especially Institutions of National Importance like the IITs and the IIMs) which have historically been heavily subsidized through public funds, can cut down their financial dependence on the Govt. and reach out to the masses through marketing ICT-enabled customized programmes/courses.

**H<sub>09</sub>:** There is no significant difference among respondent opinion (across various demographic categories) regarding HEIs' ICT-enabled programmes generate positive social gains for the unprivileged (by being socially-inclusive) besides promoting desirable financial self-sufficiency of the Institution, reducing the drain on the public exchequer.

**H<sub>10</sub>:** There is no significant difference among respondent opinion (across various demographic categories) regarding B-Schools using the latest, state-of-the-art ICT infrastructure outcompete other B-Schools in quality of education, positively affecting the student learning outcome and placement performance in a B-School.

#### V. Research Methodology

The present research being exploratory cum descriptive in nature, primary data shall be collected through 3 research instruments. The first shall comprise of a sample of 300 B-School students, second 100 B-school teachers and third 100 B-school recruiters/employers (conducting campus placements), from diverse socio-economic backgrounds/regions (i.e. NCR ) using judgmental sampling technique. A 5-interval Likert scale from 'strongly disagree' to 'strongly agree' shall be employed to measure psychographic profile (attitudes, interests and opinions) of B-School students, teachers and employers. A statistical research tool like Univariate Analysis has been used as per the requirement of the research instruments. Secondary data will be collected from relevant offline/online research publications.

## Data Analysis

Analysis of data has been done using various descriptive and inferential statistical tools like Frequency distribution, Percentage, Arithmetic Mean, ANOVA. For hypotheses testing and analyzing significant difference Analysis of Variance test using General Linear Model (Univariate Analysis) was applied employing SPSS 16.

## Findings of the Study

- Majority of respondents (across various demographic categories) concur that Indian Management Education Sector is presently undergoing a transitionary period; with increasing demand, mushrooming growth of substandard B-Schools, demand-supply mismatch and poor quality of education in the absence of effective regulation/accreditation. The last one or two decades, have witnessed phenomenal proliferation of B-Schools (particularly in the private domain) to satisfy the rising demand and taking advantages of the huge demand-supply mismatch. A lot of substandard B-School have mushroom which offer poor quality of education as the regulation of technical education (particularly business education) is quite lax and there are no stringent requirements of accreditation.
- Majority of respondents (across various demographic categories) agree that Management Education being eclectic /interdisciplinary in nature requires that B-Schools impart relevant, current and cutting-edge knowledge to the students, which could not be possible without incorporating ICT in the curriculum and pedagogy. Management being the melting point of various disciplines. B-School students are required to possess vast amount of knowledge related to many sister disciplines (from which management has taken inspiration from) and apart from classroom teaching and research-based presentations, only ICT helps in broadening the horizons of learning of a B-School students learning who must be well-informed about the latest happening in the world of business and beyond which is possible only by incorporating ICT in the curriculum and pedagogy.
- Majority of respondents (across various demographic categories) think that Quality of ICT infrastructure is poor in a large number of B-Schools due to absence of trained IT Staff, Connectivity Issues and Lack of Investments, adversely affecting the student learning outcome and placement performance in a B-School. Most of the B-Schools pay a lip-service to creation of quality infrastructure, there is absence of trained IT staff to help novice known ICT-literate students and there are problems related with connectivity due to lack of investments in Wi-Fi/Broadband which adversely affect the student learning outcome and placement performance in a B-School.
- Majority of respondents (across various demographic categories) think that significant disparity in ICT usage among B-Schools in big metropolitan cities and those in small towns in the hinterland, adversely affecting the student learning outcome and placement performance in a B-School. As compare to B-Schools, in metropolitan cities, those in the hinterland lack quality infrastructure because of lax regulation, profiteering motive and lack of awareness among B-School students which adversely affect the student learning outcome and placement performance in a B-School.
- Majority of respondents (across various demographic categories) think that Distance Learning delivered through ICT (e.g. Massive Open Online Courses) helps people who would otherwise be denied acquire quality education at par with regular classroom teaching and is getting popular among the working professionals. MOOCs have become rage in the west but in India its awareness is still restricted to a few well informed students in big cities but it helps people to acquire quality education at par with regular classroom teaching overcoming cost, time and distance/location constraints and that is why it is popular with the working professional.
- Majority of respondents (across various demographic categories) think that ICT-enabled LDPs (Long Duration Programmes) conducted by elite B-Schools (like IIM Calcutta); being low-cost, long-distance and flexi-time in nature are getting popular among the working professionals to whose needs they are tailored. Many elite B-Schools have started offering ICT-enabled Long Duration Programmes which overcome cost, time and distance/location constraints and offer working professional tailor-made customized programme on

flexi-time basis and that's why are becoming so popular among working executives who want to improve their professional qualification.

- Majority of respondents (across various demographic categories) believe that ICT-enabled LDPs serve the needs of those constrained financially or in terms of time/distance by opening promising career avenues which would otherwise remain closed to a large section of the *eager but unable*. ICT-enabled Long Duration Programmes Ivy-League institution helps the financially constraints and those constraints by time/distance by opening career avenues which would have otherwise remained closed to them. Thus ICT-enabled LDPs are a boom for the *eager to learn but unable to afford time/cost*.
- Majority of respondents (across various demographic categories) believe that HEIs (especially Institutions of National Importance like the IITs and the IIMs) which have historically been heavily subsidized through public funds can cut down their financial dependence on the Govt. and reach out to the masses through marketing ICT-enabled customized programmes/courses. A few leading elite HEIs (the Govt. funded IITs and IIMs) have taken a lead in offering ICT-enabled customized Long Duration Programmes and other courses for the benefit of the needy constrained by time/cost and in the process, generate valuable sources of income which helps the government cut down its financial aid and help the Govt. funded institutions of national importance become less financial dependent of the Govt and also reach out to the masses through its ICT-enabled programmes.
- Majority of respondents (across various demographic categories) believe that HEIs ICT-enabled programmes generate positive social gains for the unprivileged (by being socially-inclusive) besides promoting desirable financial self-sufficiency of the Institution, reducing the drain on the public exchequer. HEIs ICT-enabled programmes not only helps the Institution become financial self-sufficiency but also help the unprivileged in getting access to quality education and thus socially-inclusive as well as promoting financial self-sufficiency of the Govt. funded institution.

- Majority of respondents (across various demographic categories) think that B-Schools using the latest, state-of-the-art ICT infrastructure outcompete other B-Schools in quality of education, positively affecting the student learning outcome and placement performance in a B-School. It has been found that B-Schools offering the best of ICT infrastructure are adjudged the best in terms of quality of education and placement performance than those who are deficient in ICT infrastructure. This is on account of better teaching-learning outcome due to use of ICT.

## VI. Conclusion

ICT proves an effective tool in imparting student centered education without any discrimination by providing easy access to varied and quality content of different type of information. In India beginning of different ICT programs meets the needs of 21st century, but there are some gaps also. Expenditure on education should be increased. ICT influences all the sectors along with education one. It promotes the way of exchanging information by providing alternative pathways, improving the working conditions. Curricula should more enrich with the demand of varied skills. Wider availability of best practices and best course material in education, which can be shared by means of ICT, can foster better teaching. However there exist some risks and drawbacks with introducing ICT in education which have to be mitigated. Successful implementation of ICT to lead change is more about influencing and empowering teachers and supporting them in their engagement with students in learning rather than acquiring computer skills and obtaining software and equipment

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