IMPACT OF DIGITAL TECHNOLOGY ON LEARNING TO ENHANCE THE EMPLOYABILITY SKILLS OF BUSINESS MANAGEMENT GRADUATES

Dr. R.Mary Metilda*, Neena .P.C **,
*Professor & Head, Department of Management Studies, Sri Ramakrishna Engineering College, Coimbatore, India
**Research Scholar, Management Science, Anna University, Chennai, India
Assistant Professor, Sambhram Academy of Management Studies
Bangalore, India

ABSTRACT
The entry of online technology in the information era has witnessed a radical effect on the knowledge acquisition of an individual to sustain in the competitive scenario. The professional of the digital age is expected to acquire ICT (Information and Communication Technology) skills to survive in the virtual world to be successful in their career. The advent of digital tools and networking facility had set up an electronic platform for a graduate to improve their employability skills. The introduction of Digital Technology boosted the process and core skills of an individual with high self-confidence, a process skill attribute of the employability skills to achieve success in the job market. This paper is an analysis of the significance of Learning with Digital Technology toenhance the employability potential of business graduates as digital competence is expected for better employment prospects. The study had analysed the variation of the process skills of the graduates with the impact of the digital technology facilities implemented in institutions and had also identified the instance of high variation in the process skills of those graduates are not given exposure to Digital Technology facilities.
Keywords: Process Skill, Employability, ICT, e-Learning, Digital Technology, Business Management Graduates, Experiential E-Learning Applications for MBA course

INTRODUCTION

The transition from traditional modes of learning to the modern means of virtual learning had taken place in India at a higher pace, though the educational institutions follow the technological advancements in a snail's pace. The e-learning revolution with the e-commerce entry and its impact on the employability of business management graduates is an interesting study in the recent competitive business world. There is an utter need for the business management graduates to upgrade their skills due to the mismatch of skills with the changing business set-up in the present context. The contemporary business management set up is with global standards of benchmarking at all functional levels and expect the young graduates to be equipped with the technological skills to match the competitive business world. This study is intended to find the impact of learning with Digital Technology on the employability skills of business management graduates.

The business graduates should possess digital skills with exposure to ICT (Information Communication Technology) and Digital Technology as these are vital skills considered by the employer to absorb management graduates for a job. Not all the institutions provide the infrastructure facilities with the digital infrastructure, but certain advanced institutions with an additional investment had initiated it. This will surely enhance the employability potential of the students, as they get exposure to activities such as interactive webinars, conferencing both audio and videos, access to expert sessions through the internet, CEO talk, web blogs which discuss a specific topic with inputs from various segments of industry in different streams and access to research-based articles in referred journals through e-learning digital library.

Scope of the study

The advent of the digital communication technology in the academic field had marked a significant impact on the higher education. The new generation is more inclined to get information from the web-based learning and the access to the internet had radically changed the learning methodology of the graduates (Wentworth & Middletown, 2014). The advantage of e-learning will benefit the graduates if the proper alignment of the technology is done with pedagogy combined with teacher's efficiency in imparting it (Petko et.al, 2012). The young generation is totally engaged with technology, which motivates them (Higgins et.al, 2012) to acquire expertise in their interested topics of study. There are several ways the Digital Technology has been improving the efficiency of the education system, there is promising evidence that an individual's employability skills are also enhanced with the know-how of ICT. It is a fact that continuous upgrading of skills for employability is mandated for any job as per the dynamic conditions of the industry. Digital resources coupled with digital tools

can increase knowledge and the career environment of a graduate and enable him to understand the career trends with the connection to the external world through the World Wide Web.

REVIEW OF LITERATURE

Horton (2001) defined e-learning as the application of internet and digital technologies to create experiences that educate human resource. E-learning includes all forms of electronically supported learning and teaching and ICT are used for its functioning which supports in transferring of skills and knowledge (Ionescu, A.2012). E-learning has the potential to revolutionise the way we instruct to learn and how we learn (Marc, Rosenberg, 2001). Learning with Digital Technology entails a blend of technology, digital content and training. Digital Technology is defined as any process in which the teacher or learner uses digital equipment such as a computer (or a Laptop, tablet, MP3 player, or console) to access digital tools such as learning platforms and virtual learning environments (VLEs), and/or Learning with Digital Technology resources (such as lessons, tests, learning aids and games) to improve their knowledge and skills. The learning hub in e-learning consists of digital class; Wi-Fi enabled campus, e-books access, free or paid through the online library, usage of ICT in the learning process. The digital tools if used efficiently, it will build skills such as interactivity, critical thinking, collaboration among the students and initiate e-commerce link to the learning process. (Lou et al, 2001).

BENEFITS OF LEARNING WITH DIGITAL TECHNOLOGY

The Learning with Digital Technology comprises of ICT productssuch as teleconferencing, email, audio, television lessons, radio broadcasts, interactive voice response systemetc. (Sanyal, 2001, Sharma 2003). EDUSAT is the first exclusive satellite configured to meet the growing demand for an interactive satellite-based distance education system for India. Many other live transmission programs have been set up with the support of Government initiatives for the benefit of the learners. The UGC (University Grants Commission of India) had set up Media Centres in various universities and institutions in the country to produce video & multimedia-based programmes and in-house quality educational programmes for electronic media. The queries of the students can be addressed in a live manner with methods such as Audio Video Conferencing through the satellite based distance education system which enables virtual class access at rural and remote locations across the country. The launch of Cloud-based E-learning solutions have enabled to use the web based tools at a reasonable cost and the Open educational resources (OER ICT) supports graduates to access the subject based contents in the virtual learning world. There are lots of groups who contribute widely to open source and open content which plays a critical role in e-learning in the future. Hence, there should be an appropriate benchmark to monitor the e-learning courses and the industry should be ready to accept the e-learning certification to smoothen the placement process of the learners.

Similarly, there is some qualitative evidence that digital tools and resources enable teachers to do their job better in relation to teaching, assessment and their own on-the-job learning and development. There are various factors to be identified that to be added for efficient implementation of Digital Technology learning and teaching. The instructor's support to graduates to access digital facilities is vital or else the very purpose of Learning with Digital Technology fails to achieve it. The exposure of students to digital class learning has already proven successful in the school education with the multi-media facility which enables visual based learning of different subjects (Chong, D. H., 2001).Successful utilisation of Digital Technology depends not just upon sufficient access to equipment, tools and resources, but also on the availability of sufficient training, and knowledge and support networks for teachers (Ali, M. 2015). Instructors should be competent to work in virtual learning environments to facilitate communication with students as well as the other stakeholders of education (Zhao, 2001).The use of Digital Technology can aid teachers to improve their pedagogical approaches and their assessment of learning of the graduates (Littlejohn et al., 2002) with more accuracy in the evaluation and feedback system which gives scope for further improvement in their academic performance.

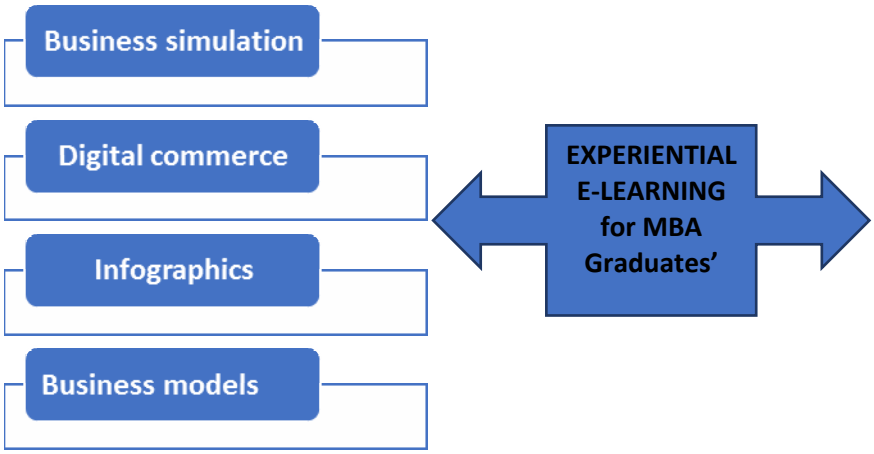
There are many graduates who had enrolled for a certification course (Nathan et al., 2016) to improve their employability potential as they are aware of the tough job market in the current scenario to land into an employment. The empirical studies (Aristovnik, A., 2012) had identified the efficiency of educational outcomes that varies across the countries with the kind of infrastructure facilities involved, which has great potential to increase the efficiency in ICT for improving the educational outcomes. Most of the Y-Gen students of all streams are technology savvy, who depends more on the internet technologies for updating knowledge. Students are having access to a gamut of information which can be accessed through Google, Wikipedia, etc. to clarify their doubts instantly compared to the olden times to be clarified it from the instructors. The authors' (Bhattacharya and Sharma, 2007; Cholin, 2005) had done a descriptive study on the projects to facilitate e-learning facilities in various institutions and examined the reasons for the limited e-learning situation in developing nations like India and highlights on the alternatives that are available with the institutes to deploy ICT and to implement e-learning.

ADVANTAGES OF E- LEARNING FOR BUSINESS MANAGEMENT PROGRAMS

Most of the academic institutions adopted Learning with Digital Technology for improving the employability of the graduates with exposure to case studies of reputed industry bodies and institutes, with incorporating business cases of different segments and sectors improves the knowledge of the graduates. The competitive industry employers expect digital competence along with other personal competencies which are related to social skills of networking to connect to the outer world through networking. The effective use of digital technologies combined with ICT practice is crucial for an institution to link with industry to update the progress in the business where the experiential learning is crucial. (Steven Gold, 2001) had analysed the important aspect of experiential e-learning applications in finance which he recommends the institutes to implement through internet applications and emphasized on the potential for experiential learning with the embrace of digital technology through a range of internet applications which are student's trainingespecially in the business studies such as Sector Tracker, Asset Allocator, Mutual Funds Map, Fund Analyzer, online HR recruitment, interactive sessions with industry experts in webinars, and such. The experts from each industry sector address graduates through webinar and video conferencing which will enable the graduates to get the explanations instantly. The students feedback about the online learning states that courses delivered online in part-time MBA program is constructive and it enables to develop the knowledge creation skills with the availability of course material through the internet. (McGorry, S. Y, 2002).The students get access to research-based through e-library with e-database of journals such as EBSCO, repositories of universities, Ernet hosted journals, ProQuest etc. mentioned in the websites of various management

METAMORPHOSIS INTO EMPLOYMENT WITH DIGITAL COMPETENCE

Youssef et.al (2008) studied about the influence of the usage of ICT on the student's outcome in the higher education and focused on the direct and indirect effects. Many of the institutions opt for the usage of ICT as it has a positive correlation with the student outcome which demonstrates in improving their motivation, self-esteem, ICT skills, collaborative skills, subject knowledge, information handling skills, metacognitive skills etc.The institutions with Digital Technology facilities assist students with access to lecture contents,articleand case studies of reputed journals,thesis from the database of central repositories Portals.Among these, business management studies through online are highly accepted with the launch of MOOC (massive open online course) from Harvard to a Private partnered course which was widely accepted globally. Thus, the students can benefit from experts spread across the globe.The academic factors of employability from the institutional perspective includes the infrastructure facilities an institution offers which are mainly digital library, a computer lab with management relevant software, conference sessions with digital satellite technology, webinars and video conferencing from companies etc.The access to University repositories with the database collection of research journals will strengthen the knowledge of any individual, are the sources of enhancing graduate's employability skills.



Each institution and the faculty make use of the digital resources in different manners and it enhances the knowledge to help graduates to be aware of the latest developments (Plomp, Pelgrum& Law, 2007). There are various ways in which a graduate who depends on online learning gather information to improve skills. Raboca et.al (2004), had analysed the student's perceptions on the impact of ICT in the educational attainment with various merits & de-merits observed to it. The benefits are the performance improvement with the ICT tools and the drawbacks are the lack of training both in the teachers and students in the use of ICT tools(Almenara,2004). The digital skills should help the student to analyse the business set-up from different angles of digital marketing, stock trading, Forex trading, and online investments, Outsourcing of HR functions

such as online recruitment, Marketing tools as CRM – customer relationship management, online market surveys etc. This kind of experiential learning has a strong impact on improving the employability of business management graduates who studies in institutions supplemented with online based training. The participation of students voluntarily in blogs of their specialization can open a way for the interchange of ideas to learn more about their subject which is also an interesting window for discussion on the world-wide web. The collaboration with international universities through online also helps to exchange ideas beyond the cross-cultural zone. The entire process of the educational e-learning system requires a shift ofchange management incorporating Student Information System, Collaborate Social Networking Sites, executive business Programs through internet etc.

Though studies are conducted to know the impact of curriculum and other factors on the outcome of the student learning, the impact of digital technologies on the improvement of the employability skills for business graduates is yet to explore. The study is relevant as there is a widening of skill gap due to ineffective strategies of the implementation of technology in the academic field.

PROCESS SKILLS AND EMPLOYABILITY

PROCESS SKILLS	
Digital Technology / Computer Literacy	Problem solving
Commercial Awareness	Negotiating
Prioritising	Decision Making
Subject Application / Domain Knowledge	Team Work
Time Management	Accountability

Table 1. Process Skills

The process skill (Saunders V &Zuzel K, 2010) is implied with the application of tools to complete or organise a task into a logical sequence for successful completing any task with the right application of skills in the right context. The survey conducted for the management students convey that their learning process is efficient with Wi-Fi enabled campus which facilitated them to refer instantly to the internet for clarification of some terminologies and comprehensions.

Objectives of this study

- To analyse the impact of Learning with Digital Technology on the employability skills of business management graduates.
- To examine the variation in the skill level of process skills of graduates with the implementation of digital technology in the institutions.

Population and Sample size

The impact of Learning with Digital Technology in the skill sets is analysed in three different contexts of graduates of Tamilnadu, Karnataka and PGDM institutes of both states. (Table 1)
Hence, the population of the study taken are as given in the table below.

State / Course	No. of Institutions	No. of students	Sample proportion estimated	Response collected
TAMILNADU MBA	367	29900	384	456
KARNATAKA MBA	186	18930	384	442
PGDMTamilnadu& Karnataka Total	47	6955	384	386

Table1. Sample of the study

The sample data of the study are business management graduates of different institutions. Their skill level is evaluated using a self-assessment instrument and compared with the expected skill level from the employers of selected sectors of industry.The facility of digital technology in the academic institutions is taken as the selection variable with its impact on the dependent variable of process skill average and the process skills of students which are the independent variable.The predicted value derived with the analysis of multiple linear regressions iscompared with the meanvalue and based on that the variation of the skills set is derived.

The process skill variation in the employability is modelled using the regression equation
Process skill Predicted value = $\beta_0 + \sum\beta_1 *$ ln (mean of process skill)
were the mean is given in the descriptive statistics.

REGRESSION CO-EFFICIENT AND PREDICTED VALUE OF PROCESS SKILL OF GRADUATES OF INSTITUTIONS IN TAMILNADU WITH AND WITHOUT DIGITAL TECHNOLOGY

PROCESS SKILL VARIATION OF GRADUATES - TAMILNADU						
Learning with Digital Technology	Predicted process skill level			R^2 of model	F value	Significance
	Mean	σ	Predicted level			
YES	6.04	1.29	4.88	.258	3.44	.000
NO	5.82	1.35	5.09	.260	11.92	.000

Table 2. Predicted value of the skill variation

The above table indicates there is less (predicted variation in process skill is 4.88) variation in the process skills among students towards the end of the course as they have been trained with Digital Technology facility in the institution. The predicted variation in process skills of 5.09 is higher in institutions without ICT facilities than that of with ICT facilities, this indicates that the employability skill of graduates from institutions with ICT facilities have a high average (6.04) and low F Value (3.44). But mean of process skill of graduates from institutions without ICT facility is 5.82 and F value is 11.92. This shows lower digital skills and large variation in employability level due to the variation in digital skills.

These are the outcomes of the linear regression analysis of the student's process skills with the selection variable as e-Learning availability or not. The't' value is less than '2' and significant level >.05, except in ICT, prioritizing, Subject Application, Time Management, and Problem Solving. This means that only these above four skills contributed to the variation in process skill,while no variation to allother skills to an extent.

REGRESSION CO-EFFICIENT AND PREDICTED VALUE OF PROCESS SKILL OF GRADUATES OF INSTITUTIONS IN KARNATAKA WITH AND WITHOUT DIGITAL TECHNOLOGY

PROCESS SKILL VARIATION OF GRADUATES - KARNATAKA						
Learning with Digital Technology	Predicted process skill level			R^2 of model	F value	Significance
	Mean	σ	Predicted level			
YES	5.54	1.47	4.27	.459	13.05	.000
NO	5.76	1.44	4.49	.265	9.82	.000

Table 3. Predicted value of the skill variation

The above table shows the variation in the predicted value of the process skill among the graduates from the institutes with Digital Technology facility as 4.27, which is less than the predicted value of (4.49) without Digital facility. The regression model for the process skill for with Digital Technology facility explained 45.9% variance and only 26.5% for the process skills of students from institutes without Digital Technology facility. This is a contrast to the results of Tamilnadu institutions as the students in Karnataka institutions, especially students from urban areas are acquainted with Digital technologies by their own initiatives without depending on academic institutions. Hence, even if there are no Digital Technology facilities in their institutions, their employability level is high.

REGRESSION CO-EFFICIENT AND PREDICTED VALUE OF PROCESS SKILL OF GRADUATES OF INSTITUTIONS IN PGDM (TAMILNADU & KARNATAKA) WITH AND WITHOUT DIGITAL TECHNOLOGY

PROCESS SKILL VARIATION OF GRADUATES - PGDM						
Learning with Digital Technology	Predicted process skill level			R^2 of model	F value	Significance
	Mean	σ	Predicted level			
YES	6.48	1.26	3.65	.328	4.83	.000
NO	5.95	1.26	4.60	.516	10.44	.000

Table 4. Predicted value of the skill variation

The above table shows the predicted variation in the process skill as 4.60 for institutions without digital technology facility and it is higher than the predicted variation in process skills (3.65) with digital technology facility. The process skills such as Subject application, Problem-solving, Negotiating and Accountability have 't' value greater than '2' in the case of students of PGDM institutes with digital technology facility and skills such as Decision making, Team work and Accountability have 't' value greater than '2' in the case of students of PGDM institutes without digital technology facility. The variation in employability level (F= 10.44) in institutions without Digital facilities is higher. It resembles the results of institutions from Tamilnadu.

RESULTS AND DISCUSSIONS

The study had identified the impact of digital technology on the employability of graduates in business institutions; and found out that digital technology support contributes to specific skill level attainments with improvement in the learning capacity of the graduatesand improved the efficiency of the academic system. The study also identifies the variation of different process skills of graduates with respect to the availability of the ICT/digital technology facilities surrounding them. There is a significant effect of the variation in the level of process skills of the students from the institutes without digital technology facilities. This has a substantial difference in the achievement of professional skills which will increase the employability of the students. The lower variation in the Predicted value score of certain skills of students in the institutes of the Learning with Digital Technology indicates that the student's process skills are improved with this background.Hence, the study concludes that there is variation in process skills of graduates of institutes where there is exposure to these updated learning environments with ICT and Learning with Digital Technology. The study also indicates there is an improvement in the employment with the transition in the instruction methodology and pedagogy ifit is incorporated in the business management institutes in the form of digital competence to be attained along with other competencies.

LIMITATIONS AND CHALLENGES

There is a contradictory outcome in some societies despite the considerable growth in the use of information and communication technologies (ICT) as there is a signal that HE(Higher Education) fails to attain the expected transition in learning and teaching. The implementation of the Learning with digital technology is a costly affair with the initial huge investment to initiate the process and the know-how and expertise to execute and train the graduates.The-Learning with digital technology requires the up gradation and maintenance of digital tools and it involves operational costs for an effective outcome. Another imitation in the online world is that broad band connection often getting slower and the challenge lies in the continuous availability of network connection. As many reports state that a reasonable proportion of students who enrolled in the various online courses had discontinued it which proves that absence of human factor in the virtual learning is a major drawback for its final success. There are lots of indication that the overall technology-based interferences in a student's learning will make a difference only when it is utilized properly to support teaching and learning.

CONCLUSIONS

In general, it can be summarized that digitalized e-Learning have its impact on the development of the process skills which reflects on the employability of the graduates.Hence, the Government should focus to initiate strategic policies for Learning with Digital Technology and teaching by highlighting its benefits in the academic institutions. As the corporate world demands graduates sharpened with ICT skills on hiring the entry level graduates, the challenge ahead is to overcome the road blocks of the institutions to emerge a blended learning system in the virtual platform comprising both traditional and e-Learning.

REFERENCES:

Ali, M. E. R. Ç. (2015). Using technology in the classroom: A study with Turkish pre-service EFL teachers. TOJET: The Turkish Online Journal of Educational Technology, 14(2).

Almenara, J.C. (2004). Teacher training in ICT. The great workhorse. Communication and Education: New technologies and teaching resources, 27-31.

Aristovnik, A. (2012). The impact of ICT on educational performance and its efficiency in selected EU and OECD countries: A non-parametric analysis. TOJET: The Turkish Online Journal of Educational Technology 11(3), 144–152.

Bhattacharya, I., & Sharma, K. (2007). India in the knowledge economy – an electronic paradigm, International Journal of Educational Management,21(6), 543 – 568

Cholin, V. S (2005). Study of the application of information technology for effective access to resources in Indian university libraries, The International Information &Library Review,37(3), 189-197.

Chong, D. H. (2001). The practical considerations of the Internet in the EFL classroom. The Journal of Multimedia-Assisted Language Learning, 3(2), 9-35.

Gold, S. C. (2014), E-learning: The next wave of experiential learning. Developments in Business Simulation and Experiential Learning, 28.

Higgins, S., Xiao, Z., &Katsipataki, M. (2012). The Impact of Digital Technology on Learning: A Summary for the Education Endowment Foundation London: EEF. Available at: http://educationendowmentfoundation.org.uk/uploads/pdf/The_Impact_of_Digital_Technology_on_Learning_-_Executive_Summary_(2012).pdf.

Horton, William K. (2001), Evaluating e-learning. American Society for Training and Development.

Ionescu, A. (2012). New e-learning method using databases. Database Systems Journal, 3(3), 35-46.

Littlejohn, A., Falconer, I., &Mcgill, L. (2008). Characterising effective eLearning resources. Computers & Education, 50(3), 757-771.

Lou, Y., Abrami, P. C., &d'Apollonia, S. (2001). Small group and individual learning with technology: A meta-analysis. Review of educational research, 71(3), 449-521.

Marc, Rosenberg J. (2001). E-learning: Strategies for delivering knowledge in the digital age. Taiwan: McGraw-Hill Int, Enterprises Inc.

McGorry, S. Y. (2002), "Online, but on target? Internet-based MBA courses: A case study." The Internet and Higher Education 5 (2) 167-175.

Nathan, S. K., &Rajamanoharane, S. (2016). Enhancement of skills through e-learning: prospects and problems. The Online Journal of Distance Education and e-Learning, 4(3), 24.

Petko, D. (2012). Teachers' pedagogical beliefs and their use of digital media in classrooms: Sharpening the focus of the 'will, skill, tool' model and integrating teachers' constructivist orientations. Computers & Education, 58 (4), 1351-1359.

Plomp, T., Pelgrum, W. J., & Law, N. (2007). SITES 2006–International comparative survey of pedagogical practices and ICT in education. Education and Information Technologies, 12(2), 83-92.

Raboca, H. M., &Carbunarean, F. (2014). ICT In Education - Exploratory Analysis of Students'Perceptions regarding ICT Impact in The Educational Process. Managerial Challenges of the Contemporary Society, 7(2), 59.

Sanyal, B. C. (2001). 'New functions of higher education and ICT to achieve education for all', Paper prepared for the Expert Roundtable on University and Technology-for- Literacy and Education Partnership in Developing Countries, International Institute for Educational Planning, UNESCO, September 10 to 12, Paris.

Saunders, V., & Zuzel, K, (2010). Evaluating employability skills: Employer and student perceptions', Bioscience education, 15(1), 1-15.

UGC, http://cec.nic.in/Pages/About-CEC.aspx

Wentworth, D. K., & Middleton, J. H. (2014). Technology use and academic performance. Computers & Education, 78, 306-311.

Youssef, A. B., &Dahmani, M. (2008). The impact of ICT on student performance in higher education: Direct effects, indirect effects and organisational change. RUSC. Universities and Knowledge Society Journal, 5(1).

Zhao, Y., &Cziko, G. A. (2001). Teacher adoption of technology: A perceptual control theory perspective. Journal of technology and teacher education, 9(1), 5-30.

