Acceptance of Digital Learning Ecosystem in Management Education and Research

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Abstract **- This study investigates the researcher's perception on use of technology as a utility to create an ecosystem to foster outcomes for management graduates and researchers community in higher education. The study adopted qualitative content analysis to formulate a research problem and develop a conceptual framework to validate objectives envisioned and outlined for the study. Through this paper, a comprehensive research model to evaluate the digital learning environment could be accomplished by conceptualization of the issue under study through focused thinking of the related concepts and by examining the inter-relationship between the dimensions. In the present study, we refer to ICT in the sense of technology that has been specifically developed to reinforce academic content, as a support to face-to-face instruction, and to know the perception of researchers on its impact on management graduates and researchers. There has always been a link between user's perception, behavioural intention to use technology and actual use of technology which has to be studied to engage the learner effectively. In many previous studies, the psychological, social, and cultural factors have been found to have an effect on the learner attitude in use of technology to aid learning.**

Keywords: ***Adoption factors, Digital learning, Digital learning environment, Information and Communication Technology (ICT), Management graduates, Research Scholar/Researcher, Universities***

I. INTRODUCTION

Acceptance of digital learning environment in universities and institutions to scale management education is the central theme of the study and presents a challenge in implementation of such a learning environment because there isn't much conviction that this change could bring about significant positive outcomes at the individual and organizational level. Ofcourse, there will be a cost incurred in operationalizing and maintaining such an environment. Therefore, the focus is to learn the perception of management research scholars in shaping such an environment which is learner-centric and outcome oriented for management grad's and researchers.

The former President of India, Shri. Pranab Mukherjee attended the Closing Ceremony of the Golden Jubilee Celebrations of Pandu College (May 13, 2013) at Guwahati.

Speaking on the occasion, the former President said our higher education system rests on the pillars of accessibility, affordability and quality. There has been a phenomenal increase in our higher education institutions. We now have over 650 degree awarding institutions and over 33,000 colleges in the country. Despite this, there is a gap of quantity as well as quality. The former President mentioned that "there should be greater use of technology to fulfill the unmet demands of higher education." The National Mission on Education through Information and Communication Technology is an important initiative. While filling up vacancies should be high on priority, we must introduce innovative technological solutions like e-classrooms to tide over this crisis and we must revitalize research and development in our country. Research is unfortunately not a preferred option, accounting for less than 0.4 per cent of our higher education student population. There is a need to promote a healthy environment for research. (Presidents Secretariat, 2013) [16] [17].

According to International Telecommunication Union (ITU) - an agency of United Nations that publishes ICT development index (IDI) report annually since 2009, has assessed and ranked India 134 globally in 2017 after monitoring and comparing countries and overtime. IDI indicates a country's progress towards being an information society, which means there is a lot to be desired in terms of improvement in ICT infrastructure, accessibility, connectivity to Internet, ICT usability and skills which are significantly important for human interactions and transactions. Management Education has seen distinctive challenges such as subsiding student engagement, growing diversity, poor governance, redundant skills, shortage of faculty, and lack of innovative teaching methods, poor quality of research and unemployability of B-School graduates. These contemporary issues have hindered

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outcomes among graduates, administrators, institutions and alumnae such as employment opportunities, better remuneration, skills and abilities for career success.

There is an innovation deficit in higher education which is clearly indicative from the country's Gross Enrolment Ratio (GER), according to the latest edition of the All India Higher Education Survey (AIHES) launched by Union Human Resource Development (HRD) the GER is as low as 25.2% in 2016-17 and is much behind China's GER of 43.39% and USA's GER of 85.8%. Also, there hasn't been any substantial improvement in the globalization of Indian education. According to Financial Times Global MBA ranking 2017, Indian management schools do not feature in the top 25 business school rankings in the world. According to the study conducted by Associated Chambers of Commerce and Industry of India (ASSOCHAM) Education Committee (AEC), it has been found that only 7% of management graduates are employable, except graduates from IIMs. Also, the All India Council for Technical Education (AICTE) has stated that majority of MBA graduates in India are struggling for jobs as there has been a significant decline in management related jobs in the market [17] [18].

Further, in this study the existing theories, concepts and models are taken into consideration to conceive ideas, design strategies, and make propositions to plan and build a theoretical framework to encapsulate and extend the available knowledge by formulating related concepts into a logical structure which acts as a blueprint to be referenced for the purpose of research approach

Objectives of the study:

- To explore the digital learning paradigm to formulate a research problem for further investigation.
- To know the perception of management research scholars on the need for digital learning environment in management education and research.

II. RESEARCH METHODOLOGY

A Formulative research also known as exploratory research was used for the current study as it involved search for literature, direct observation, and survey methods. The emphasis of the study was to formulate the research problem and bring about valuable insights from the collected data. Thus, the descriptive research was also used for the study as it involved statistical analysis to describe the nature and characteristics of the population. The study adopted qualitative content analysis of information systems (IS) management research models and methods for future research by selecting papers published in journals and conference proceedings, which were evaluated, analysed and reviewed in detail with regard to instructional practice and learning in educational settings by keeping the participants of the study in mind. Therefore, the study adopted Exploratory and Descriptive research.

The research method involved both Quantitative and Qualitative methods.

Management researcher scholars were considered for the study as they are regular practitioners of technology in research and would be a mature audience for providing reliable information and insights. The survey method was used to collect data from the respondents. The geographical scope of the study is Karnataka state jurisdiction since the respondents belonged to universities of Karnataka.

Questionnaire was used as an instrument to collect data and the study will be cross-sectional in nature since data has been collected from the representative sample only once in limited time period.

Sources of Data Collection:

Primary data and Secondary data sources:

Primary data embodies all data which was collected first-hand, originally by the researcher. Primary data was collected using a self-administered questionnaire, Interviews, and observations.

Secondary data embodies all data which is already collected or gathered by someone else and later used by others. Secondary data is collected from publications such as journals, articles, books, and newspapers, official reports from organizations, talks and speeches at related conferences and seminars, and the internet.

III. RESEARCH DESIGN

The drafted research design adapts different components of the study into logical and rational manner to formulate and address the research problem. The design includes the methods and techniques to collect, measure and analyze data, this design was followed to facilitate accurate data collection and to safeguard against bias, which will eventually maximise reliability and relevance of the information to the research purpose.

The Research Design used here is exploratory research and descriptive research.

The **exploratory research** design is used to formulate the research problem through conceptualization of ideas and theories. The exploratory study was conducted to familiarize with research area and gain insights.

The **descriptive research** design is used because the qualitative nature of data collected is mostly about the beliefs, attitude, and opinion on the related concepts of the study.

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- **Sampling design** – Sampling Method used in the study is probability sampling. The Universities were identified from the list provided by State Higher Education Council. Target population is divided into strata/sub-groups which consists of private, public, and deemed to be universities. 3 Management Research departments from each of these sub-groups were selected based on the criteria of student strength. A list of research scholars from the selected management research departments was prepared and the researchers were chosen at random from the given list. Simple random sampling method is used to select the sample of respondents.

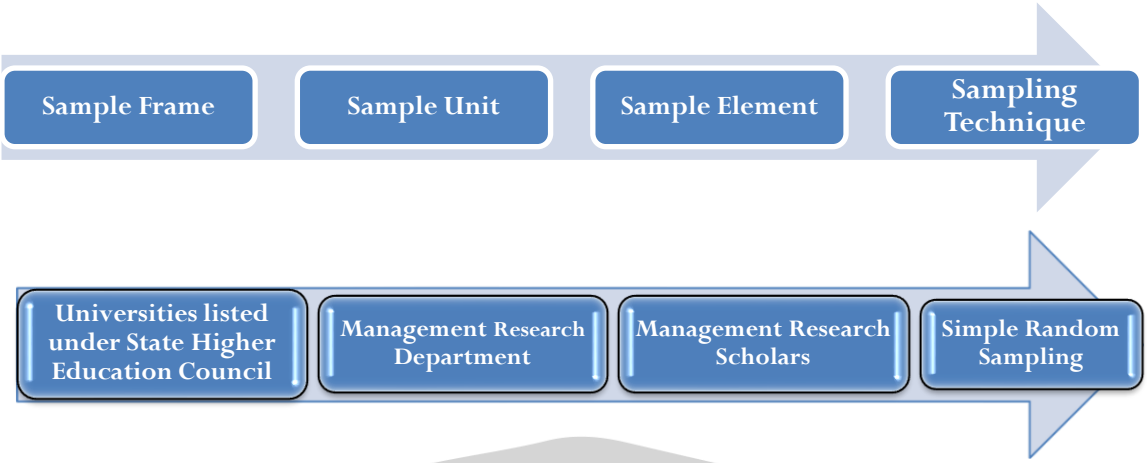

Figure 1

Sample Frame is the list of Universities mentioned under the Karnataka State Higher Education Council. Sample Unit are the selected management research departments from sub-groups i.e.; public, private, deemed universities - based on the criteria of student strength and, Sample Element are the research scholars.

- **Statistical design** – In this study, a descriptive statistics has been chosen since there is no dependent or independent variable in the study. The descriptive statistics have been used to describe the sample and provide the summary of information on items enumerated in the study. SPSS statistical software has been used to draw descriptive statistics of the sample.
- **Operational design** – The operational design ensures accurate information is collected with minimum research effort and within short duration. The Questionnaires were directly e-mailed to the individual respondents and also, group administered through online media platforms, which ensures access to any geographical area and gives sufficient time for respondents to answer. Questionnaires were sent only to the research scholars of management department of the target population by sharing google forms hyperlink through e-mail and social media platforms.
  Informal direct personal interviews with the subject practitioners from academia and industry were conducted to gather information on the subject matter. Internet search was done to list the sources to obtain information on the subject and, also visited libraries and organizations to collect information.

IV. LITERATURE REVIEW

The use of information and communication technology (ICT) may improve learning especially when coupled with more learner-centred instruction (Zhu & Kaplan, 2002) [7]. Studies have revealed that adoption and utilisation of technology is not related to the aspects of technology alone but has evolved as a much more complex process involving dimensions of user attitude and personality (Venkatesh et al. 2012), social influence (Ajzen and Fishbein 1975) [1], and numerous facilitating conditions (Thompson et al. 1991). The education sector is at its tipping point of being completely revolutionized with latest ICT infrastructure and educational technologies paving the way for a flexible and vibrant digital learning environment. The study will provide with perception of researchers regarding the potential and influence of technological intervention in the form of ICT and digital learning medium in advancing the institutional environment and culture in achieving scholastic outcomes of the learning circles. The study also emphasizes on having a more technology based education and research by designing effective curriculum and learning programs to facilitate advanced outcomes for Business and Management graduates. There is a dire need to navigate the shift towards a new paradigm of learning from instructivist to constructivist approach enabled by technology to bring about equity in management education to make graduates competitive, relevant and ready for the job-market.

Technology has revolutionised the way we educate, think, learn, and research. And this transformational power has brought about the need for paradigm shift in Biz education by inculcating technological interventions and learning practices which will

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enable desired outcomes for business management graduates and researchers in the present scenario through the medium of digital learning as we seamlessly move towards new strategic approach of learning by creating a blend by use of instructivist and constructivist methods in the digital environment. Ayala, (2009) noted that these innovations are having an impact on traditional education as they become integrated into face-to-face classes. The result has been a rising convergence between online and traditional education and the emergence of a new educational paradigm that aims to purposefully integrate elements of both approaches [2]. This blended learning may have much potential for social work in providing educational opportunities that take advantage of the best of what both online and traditional education [17].

Students might believe that they must benefit from the availability of additional resources. For example, some students at Harvard University strongly support recording lectures as a means to advance flexibility and accessibility. Pedro Gomis-Porqueras, Jürgen Meinecke and José A. Rodrigues-Neto (2010), mentioned in their work that We should not deny students the fruits of new technology merely to force them into the classroom when that technology can substantially enhance their educations, in sharp contrast the student publication of the University of California at Berkeley, Daily Californian (2006), writes: 'Webcasts are a concession to student apathy. The broadcasts are essentially an admission of defeat by an academic institution, acknowledging that it is okay to skip class. These polarized views highlight how students evaluate the different trade-offs that emerge when online technologies are offered in the classroom. Students have changing objectives when attending university. Before they start their university life, students have strong incentives to enter the most prestigious university possible. This is because they can use their University affiliation to signal their high quality to the labour market. But once admitted - assuming a high probability of completing a degree - students have an incentive to demand services that can lower the cost of their academic life as a student [20]. The typical demand by student organizations is for all lecturers to provide web-based lecture materials. However, not all of the students' short- run objectives and incentives are necessarily aligned to the best interests of students and society in the long-run. This is especially true in competitive job-market environments. These short-run and long-run considerations should be taken into account when designing policies that regulate the availability of online lecture content (Gomis-Porqueras, Meinecke, & Rodrigues-Neto, 2011) [5]. Therefore, the online learning content should be properly leveraged by delivering best quality content through the development of MOOC's which have all components integrated into a single learning platform, the teacher's should take charge as the facilitators and being part of designing lessons and integrate computational thinking to bring about an instructional practice for course learning outcomes.

As in case of management education we have SWAYAM: Study Webs of Active Learning for Young Aspiring Minds (SWAYAM) is an indigenous IT Massive Open Online Courses (MOOCs) platform developed by the Government of India to liberalize education and bring about equity, quality and access to interactive content for everyone, anytime and anywhere. Through the SWAYAM initiative the government seeks to bridge the digital divide between the regions and the hitherto societies. UGC has already issued credit framework for online learning courses through SWAYAM under Regulation 2016 on 19th July 2016, through the official bulletin - The Gazette of India, advising the universities to identify courses where the Universities can transfer credits on to the academic record of the students for courses done on SWAYAM. Learning upto 20% online courses taken through SWAYAM counted for credit transfer. SWAYAM courses are also open to foreign students. Indian Institute of Management Bangalore (IIMB) has been appointed by MHRD as the National Coordinator for Management Education, and responsible for the preparation of online courses for SWAYAM in the Management Education sector. IIMB ensures that best quality content are produced and delivered to the management students through the development of quality MOOCs and shared via the SWAYAM platform. The courses hosted on SWAYAM are developed in four quadrants i.e., e-Tutorial, e-text, Discussion forum, and Assignments. The SWAYAM mobile app is also available for android, ios, and windows users. Integrating such online courses in their curriculum for learning with the existing technology that students have knowledge, experience and skill will prepare them for future learning and success.

Information and Communication Technology (ICT):

Information and communication technology (ICT) is a platform for managing combined technology to allow people and organizations to interact in the digital world. ICT (Information and communications technology) is either wired and/or wireless technology that enable modern computing and ease of access to information through communication technologies, network infrastructure and components to create, disseminate, store, and manage information. although there is no single, universal definition of ICT, the term is generally accepted to mean all devices, audio-visual and telephone networking components, applications and systems - combine to allow people and organizations (i.e., businesses, nonprofit agencies, and governments) to interact in the digital world (Rouse & Pratt, 2017) [12]. A platform in general is any hardware and/or software that will assist in runnning an application, service, or a program.

In today's technology intensive era digital learning has emerged as an innovative and vibrant learning modality since technology is never stagnant and incorporation of Information and Communication Technology (ICT) along with traditional

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systems of instruction may lead to more effective and efficient outcomes for Biz Schools. Therefore, it may be an effective means of optimizing outcomes and improving performance of graduates and researchers.

ICTs facilitate positive results when they are used to understand the content and concepts of the subject, and not merely to facilitate memorization of content. Online technology allows students to learn gradually, autonomously and at their own pace and the results demonstrate that this has a positive effect on their progress. Specifically to say, we need to ensure incorporation and implementation of Information and Communication Technology (ICT) so as to synthesize digital learning programs to support in-depth learning in management courses to enable enhanced outcomes for business management graduates and researchers, and through these programs we will be able to deliver the educational content effectively.

The United Nations considers one of its Sustainable Development Goals (SDG) to "significantly increase access to information and communications technology and strive to provide universal and affordable access to the internet in least developed countries by 2020." (Rouse & Pratt,2017) [12]. This initiative by United Nations will further reduce the **digital divide** and assist in formulation favourable ICT policies in Universities increasing access of digital resources for greater student population which will aid in advancing the skills to succeed in achieving the academic and employability outcomes among management graduates and researchers in the digital world.

The incorporation of technology into teaching requires a financial investment, which is justified by the fact that ICT favours' and affords more efficient and effective learning outcomes by and for students and can improve performance, including academic results (Lei & Zhao, 2010) [9]. This idea remains to be tested; however, as empirical studies of this question do not usually refer to the specific employment of ICT in a given academic subject and their use is normally measured in terms of perceptions (Cooner 2010; Lopez-Perez et al. 2011) [3]. Establishing a link between the use of technology and academic achievement—for instance, by considering students' final marks—is fundamental to the provisioning of greater investment in education technology (Zhao and Conway 2001). Technology can be applied for different uses, however, and not always for an academic purpose. For example, students might use ICT to prepare class materials or for personal use (Ward and Parr 2010).

The 21st century demands ICT skills in all fields, most importantly for education, employment and for everyday life. Today employers demand confidence and efficiency in ICT use either they are at academic level or at industry level; because ICT skills are crucial in the context of job skill demand. Thus, this presents an enormous challenge to the educators; since they are expected to equip students with relevant, up-to-date, and high-quality ICT experience before students emerge into the employment world (Gibson, O'Reilly, & Hughes, 2002). D.Haywood & J. Haywood (2003) while discussing the results of a survey conducted in Europe found that majority of participants consider ICT essential for future professional activities. ICT integration in education needs proper attention, mechanism, and policy; Edelson (2001) found that ICT resources in educational institutes have been made available without a plan to associate them with curriculum; and it is often considered that once ICT resources are made available in classrooms, changes will eventually occur. However Krumsvik (2004) affirms that such perceptions have never been achieved. (Ahmed Shaikh, 2009).

Digital Learning Environment:

In this new age of learning, Digital Learning Environment (DLE) plays a crucial role in process of learning. The DLE is a mixture of digital resources and tools for self-paced learning, online collaborative learning, enriched virtual learning, & technology guided learning. All the different learning methods aim to enhance the interaction and comprehension of concepts for the students using Internet and/or computing technology. Michael Dolence mentioned that "There is no doubt, based upon the overwhelming evidence, that the Digital Learning Environment is the dominant learning venue of this millennium. It expands access, improves learning, seamlessly integrates into life and work, sustains continuous improvement in individuals and organizations, shortens the time between knowledge development and implementation, improves scholarship, and changes virtually everything regarding learning system design and that means every aspect of a elementary, secondary, and post-secondary or tertiary educational systems." already use technology to enhance their social interaction, shop online and interact with online tools (Ito, 2008) [6]. Social collaborations and exchanges between individuals have been bolstered by the development of IT infrastructure and communication technologies. New channels of communiqué have been released between masses in the last decade which has encouraged learners to scale new heights in accomplishing outcomes in the field of business, management and administration. This has also contributed and brought about significant changes in cultural, social, technological and educational outcomes.

DESCRIPTIVE ANALYSIS OF COLLECTED DATA:

A descriptive statistical analysis is being used to analyse the perception of research scholars on having a digital learning environment integrated into management institutions and universities to scale higher education and research. The questionnaire was formulated based on factors enlisted through an extensive literature review and has 48 line Items. The table provides corresponding percentages for the researchers perception on various questions enumerated in the study.

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1) The first question helps in understanding the researchers view on having an ICT driven environment. The responses clearly indicate that the research scholars have a positive perception regarding the utility of having an ICT driven environment which is a support tool to enable digital learning in management institutions. As it can be seen from the below results, according to the research scholars perception the features that ICT promotes are diverse environment, an interactive ecosystem for learning, organizational learning, learning culture, sharing culture, collaboration with other learners, building up a knowledge base, easy accessibility of knowledge resources, security and protection from loss of knowledge and enhances communication.

The Characteristics that Information and Communication Technology (ICT) promotes in Institution are					
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a more diverse environment	0%	6%	24%	**44%**	26%
an interactive learning ecosystem	4%	4%	12%	**44%**	36%
organizational learning	0%	4%	20%	**50%**	26%
learning culture	2%	8%	14%	**48%**	28%
sharing culture	2%	2%	30%	**50%**	16%
collaboration with other learners	2%	2%	16%	**46%**	34%
building up a knowledge base	0%	0%	18%	40%	**42%**
easy accessibility of knowledge resources	2%	0%	10%	34%	**54%**
security & protection from loss of knowledge	2%	10%	24%	**40%**	24%
enhances communication	0%	2%	18%	**42%**	38%

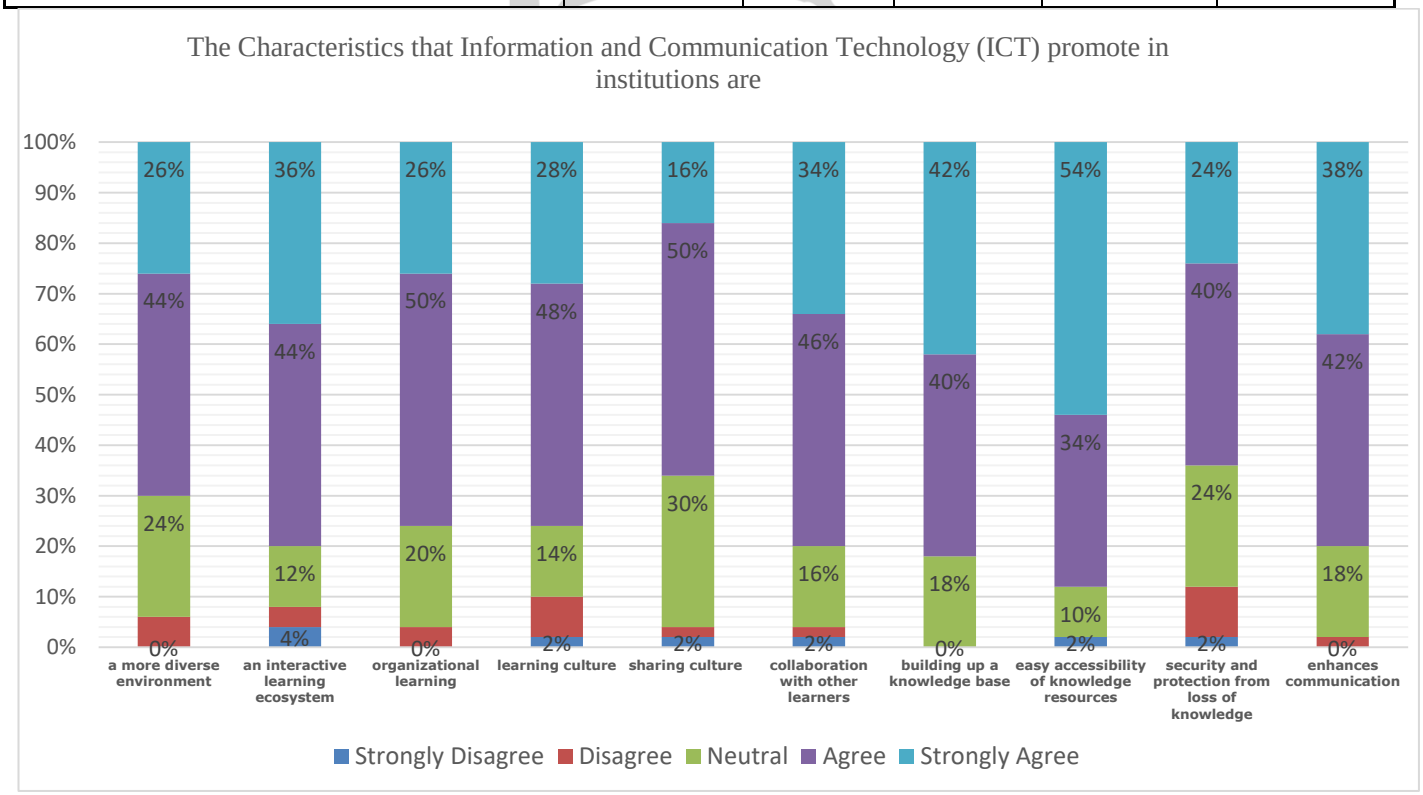

Figure 2

2) Here in this question, we try to look at beneficial use of technology and digital resources and we find researchers tend to mostly agree or strongly agree that access to technology and digital resources has a greater thrust on student outcomes with being able to access digital resources anywhere and anytime, and also help students develop problem solving skills, encourage deeper learning, improves performance, helps students to be efficient, and knowledgeable learners. E-libraries gives access to knowledge repositories, gives students instant answers with in-depth explanation to help their understanding not just abstract representation of the concept.

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Access to technology and digital resources such as e-library anywhere and anytime will					
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
help beneficiaries learn in any place and time	0%	6%	4%	32%	**58%**
help develop problem solving skills	0%	12%	28%	26%	**34%**
will encourage deep learning of a concept	0%	8%	10%	**52%**	30%
improves learning experience	0%	2%	22%	36%	**40%**
enhances the performance standards of management grad's and researchers	0%	2%	14%	42%	**42%**
supports users to be effective users of technology	0%	0%	14%	**44%**	42%
instant access to knowledge repositories	0%	2%	14%	40%	**44%**
help in searching of knowledge	0%	4%	10%	40%	**46%**
give students instant access to answers beyond what's in their text books	0%	6%	10%	**46%**	38%
increase efficiency of learners	0%	4%	18%	36%	**42%**

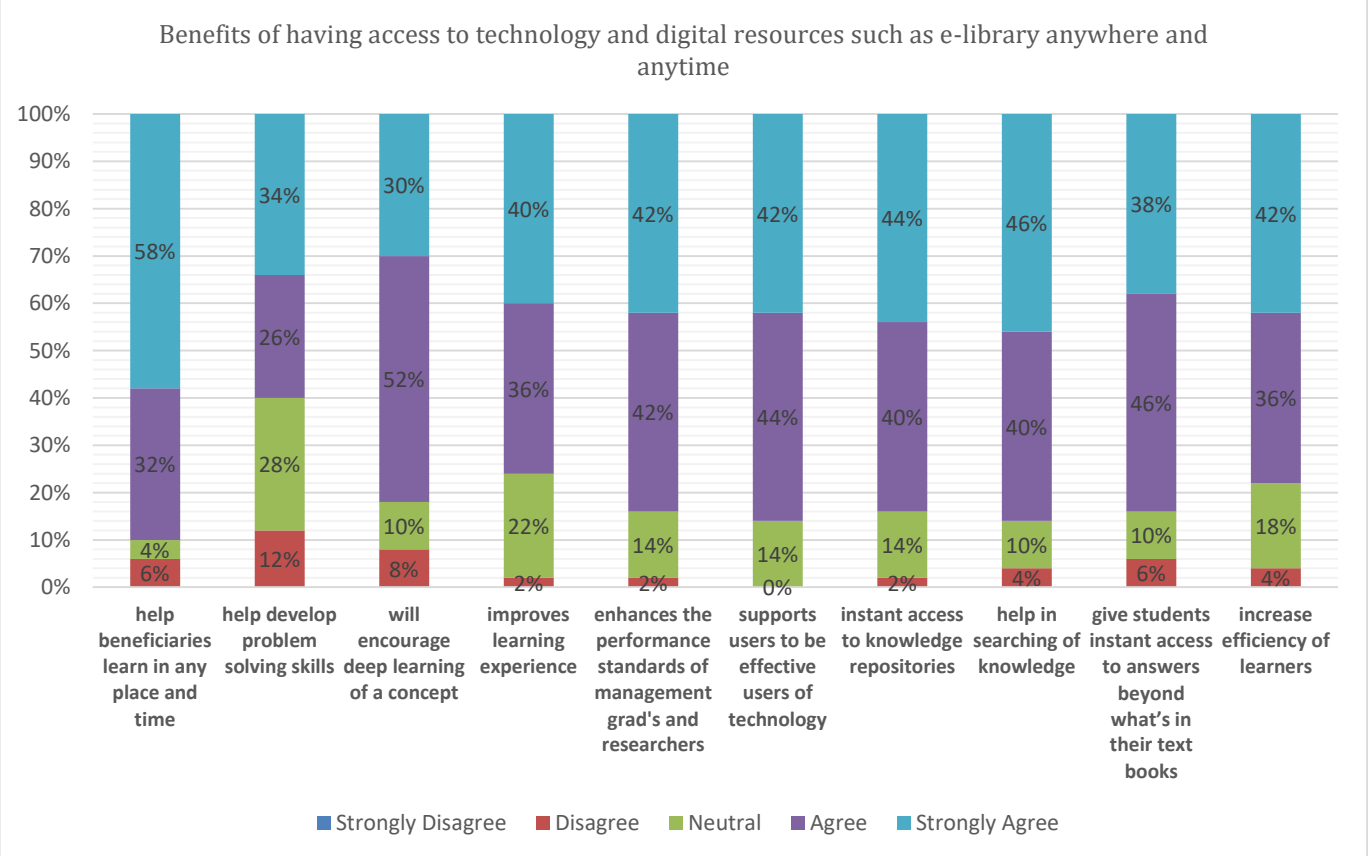

Figure 3

3) The Researchers perception on student's exposure to learning through simulations and digital content shows that this would actually makes learning more interesting, this also makes them adaptive towards use of technology and digital resources to make their learning more effective.

Learners with exposure to Computer Simulations, Multimedia content and Digital media will					
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
help in understanding of the concept and not just the definition	0%	4%	22%	**50%**	24%

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make learning more interesting	0%	4%	6%	**54%**	36%
make them adapted to using it in the future	0%	6%	20%	**46%**	28%
make learning more effective	0%	6%	18%	34%	**42%**

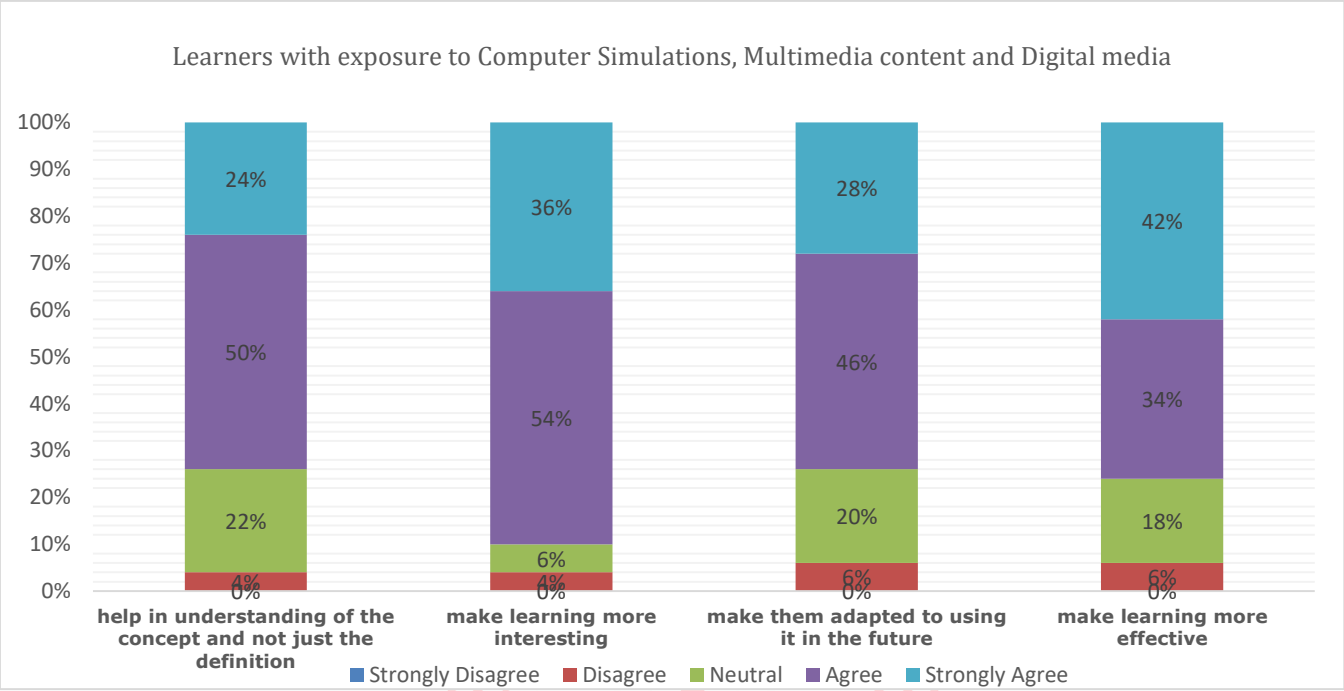

Figure 5

4) The descriptive statistics on researchers perception suggest that the MOOC's, e-learning, online learning and other digital learning strategies empower learners as they enrich quality of learning, foster self-regulated learning, enables the learners concentrate better on task and reduces behavioural problems in the classroom. Some of the respondents believe that digital learning environment and strategies bring down the cost of academic life.

Digital learning environments such as e-learning(MOOC's), blended learning, enriched virtual learning will					
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
enrich quality of learning	0%	4%	14%	**58%**	24%
fosters self-regulated learning	0%	2%	16%	**50%**	32%
enables learners to apply knowledge in real-work	0%	10%	20%	**50%**	20%
brings down the cost of academic life	2%	14%	**30%**	28%	26%
fosters continuous learning	0%	4%	12%	**52%**	32%
helps learners concentrate better on task	0%	6%	22%	**42%**	30%
reduces behavioral problems in the classroom	0%	18%	40%	**36%**	6%

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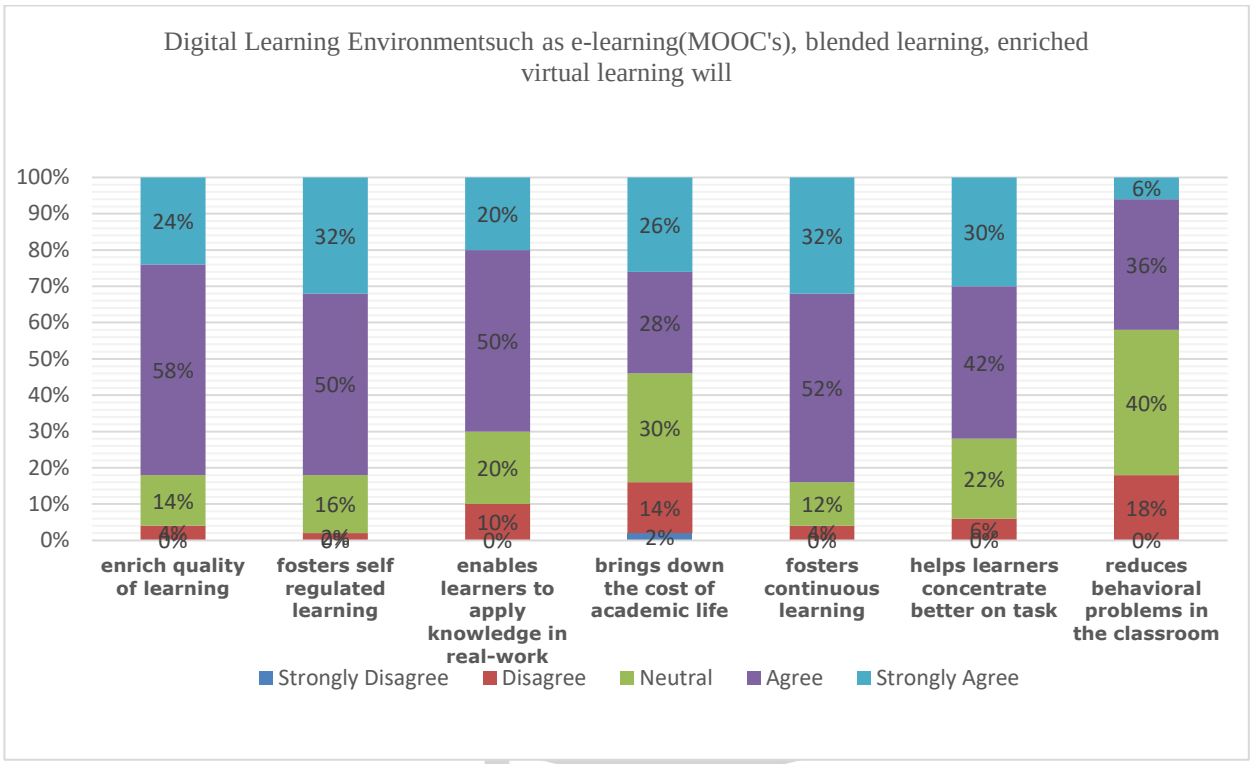

Figure 6

5) The Researchers appear to agree that incorporating ICT/Digital technology will be beneficial for learners when thoughtfully integrated into the curriculum, and is part of long term strategy of institutions for teaching-learning.

ICT/digital technology will be beneficial for the learners when					
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
taught as a separate subject	2%	14%	26%	**32%**	26%
integrated in several subjects because of curriculum requirements	0%	6%	22%	**48%**	24%
It's part of long term strategy	0%	8%	20%	**44%**	28%

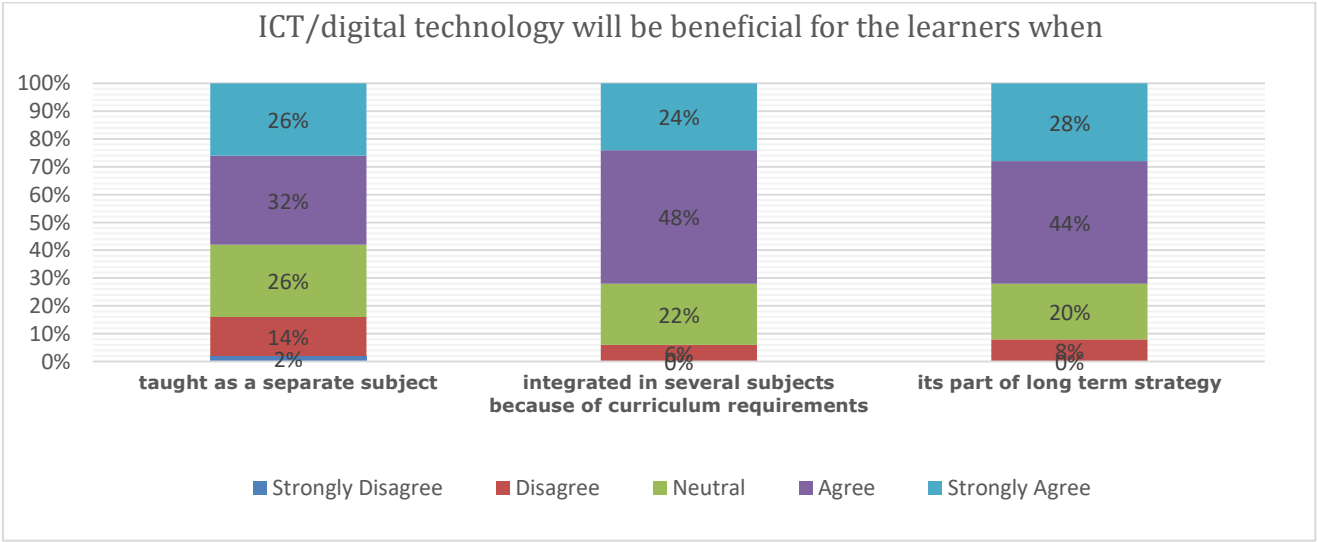

Figure 7

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6) The below table provides descriptive statistics regarding the perception of research scholars on things that ICT education will promote upon integrating it in curriculum. Not surprisingly, given the shorter timelines of academic semesters most researchers tend to have agreeableness regarding the positive effect it can have towards scholastic outcomes and skills of students. Integrating ICT education in curriculum will promote a learner-centric approach, promotes use of technology to solve complex problems, will enable students to use technology efficiently and effectively. The researchers also appear to agree that they become more adaptive to technology in future and make them aware of the practical tools that can be incorporated for use in their course.

Integrating ICT education in curriculum will promote					
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
learner centric approach	0%	4%	18%	**54%**	24%
use of technology for higher order of learning	0%	8%	14%	**50%**	28%
will enable students to effectively use technology	0%	10%	4%	**46%**	40%
will be more adapted to using it in the future	0%	10%	4%	**46%**	40%
brings awareness of practical tools in their course	0%	6%	12%	**52%**	30%

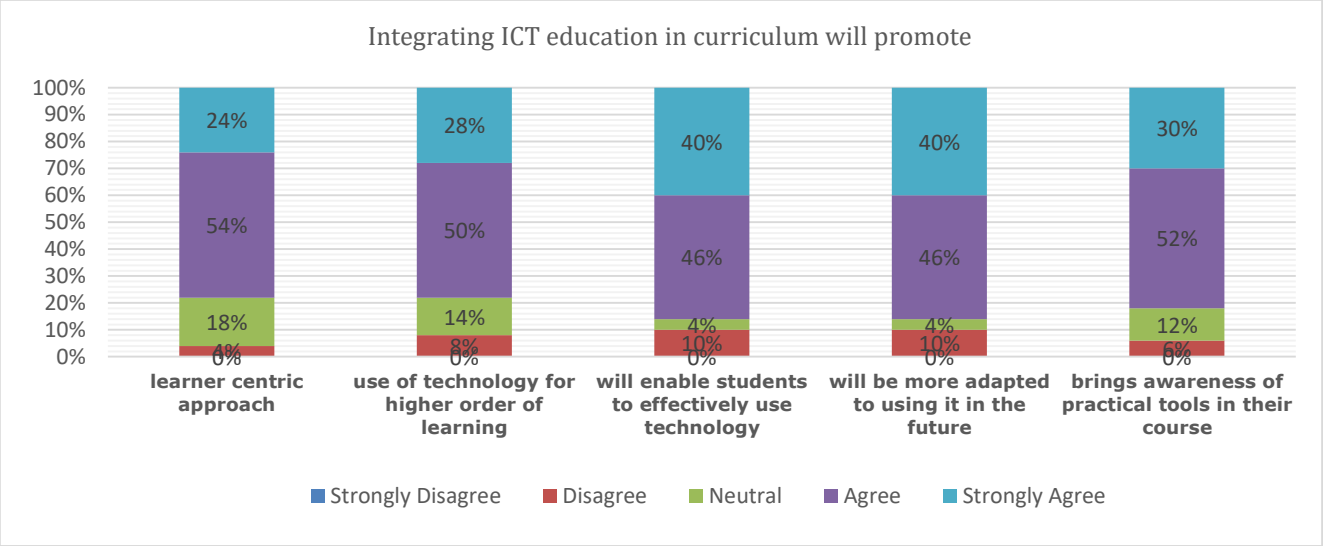

Figure 8

7) The below descriptive statistics on the perception of research scholars on ICT education and awareness as tools to empower learners and has been shown to have positive influence on students. Students with good knowledge about use of ICT and awareness of digital tools will help them plan their study at their own pace and time, self-manage their learning, improves their skills in managing projects and delivering the assignments professionally and also helps the students develop digital learning content.

ICT education and awareness empowers learners in					
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
designing self-regulated study	0%	4%	18%	**60%**	18%
self-managing their learning	0%	6%	22%	**42%**	30%
managing your projects and assignments professionally	0%	8%	14%	**48%**	30%
development of digital learning material	2%	4%	8%	**48%**	38%

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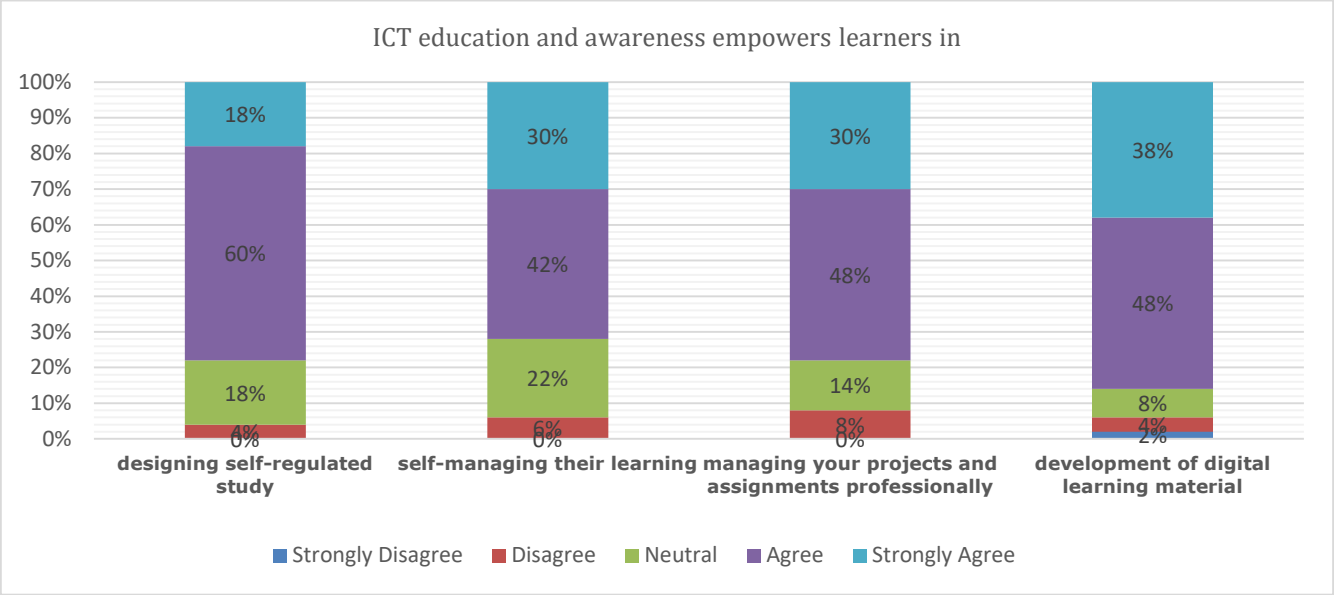

Figure 9

8) The below descriptive statistics regarding the perception of research scholars indicates that undertaking professional development through integrated courses on internet use, learning applications, equipment specific training, etc., will have a positive effect on frequency of use of technology, improves participation in online communities engages learners into professional learning, strengthen their competencies, and enforces capacity building for future learning.

Undertaking professional development through integrated courses on internet use, learning applications, educational technology, etc., will					
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
increase the frequency of using technology	2%	2%	20%	**46%**	30%
improve participation in online communities	2%	4%	18%	**50%**	26%
engage learners into professional learning in a curriculum	0%	12%	22%	**34%**	32%
strengthen their competencies	0%	10%	10%	**42%**	38%
enforce capacity-building for the future learning	0%	4%	8%	**52%**	36%

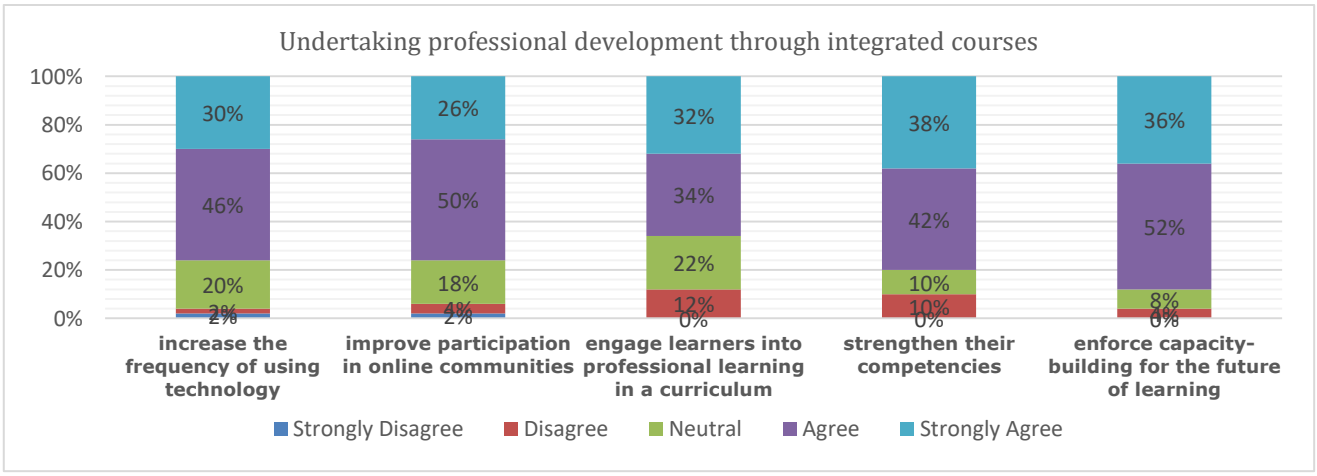

Figure10

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V. SUMMARY OF FINDINGS OF THE STUDY

To summarize the descriptive study, it is clearly evident from the responses that researcher's community believes that in higher education vis-à-vis management education that greater use of ICT has become a prerequisite and norm to advance the learning culture, collaborate with other learners, and to have timely access to resources. Undertaking professional development and training in ICT courses strengthens the user's competencies and encourages them to participate in online forums and discussions. Thus, there has to be some degree of ICT accessibility and competence in order to adapt to higher education contexts. There is also an overall correlation between greater use of the Internet and higher education and higher income (Lane, 2009) [21]. Young people who have grown up with computers, video games, the Internet, and cell phones have been called 'Digital Natives' by some scholars (Palfrey & Gasser, 2008; Prensky, 2001) [13], This cohort is believed to be genuinely different from previous generations in terms of social practices, learning styles, and even cognition, due to their early and constant engagement with information technologies. As a result, digital learning calls for a radical reworking of pedagogy in order to accommodate learners. Regardless of the attributes and associated needs ascribed to a so-called digital generation, a generation reared on media also needs literacies to understand these media forms. Alongside innovations in learning, then, have come calls for new literacies, including digital literacy, multimedia literacy, information literacy and so on (Bawden, 2008; Jenkins et al., 2006; Lankshear & Knobel, 2008). Most respondents of the study agree that Digital Learning Environment such as MOOC's bring down the cost of academic life and it fosters self-regulated learning and also agree that, access to digital resources "on-the-go" improves the learning experience, encourages deep learning of a concept, and makes them effective users of technology.

New media educators would agree, along with Cross, that 'large areas of human cognitive ability' have been neglected in education and as a result, traditional education is no longer a good fit for today's learners (2006: p 11). For Cross and many others, design fills a gap in cognitive thinking capacities, making it not merely an "addition" to a curriculum, but a foundational component. The respondents stressed on need for integrating ICT education in several subjects if there is a curriculum requirement and also, gave a positive response on ICT being taught as a separate subject. The curriculum should be based on the concept that business and IT have become interweaved and pervasive at levels of society and work. The preferred method of the respondents to learning technology was one-to-one instruction. The authors stressed that information technology literacy worked best when "woven into the curriculum's content structure", (Kaminski et al., 2003). This concept was put into action at the University of Massachusetts in Boston (Wagner et al., 2005) in a new curriculum design that integrates information technology with other management courses. IT has become ubiquitous in virtually all organizations to the extent that formation of new concentrations incorporating technology allows for the business curriculum to be more in tune with employers. Increased IT skills add value to employers. Raybould and Sheedy (2005) [22] surveyed employers near Birmingham, UK and found that the most desired qualities were "vital soft skills" rather than degree specific knowledge. Employers outlined these skills as 1) Communication and IT skills, 2) The ability to cope with uncertainty, 3) The ability to work under pressure, 4) The ability to function in teams, 5) The willingness to learn.

In today's age of technological innovation there has been a sudden surge in educational technologies worldwide to facilitate varied learning styles. As Gulbahar (2007) [23] asserts that, despite huge educational ICT investments in teaching and learning, there is little evidence of their adoption. In this study, we will critically review and analyse theories, concepts and models relating to acceptance of technology to list out factors that help adopt and facilitate digital learning in B-Schools since Information and Communication Technology (ICT) is a tool that supports the realm of digital learning. Siu & Song, (2016) stated that their research findings show that technical constraints were those mostly reported by the teachers, followed by personal factors and social factors. Among the technical constraints, WiFi infrastructure problems were the constraints most often identified for teaching and learning practices. Therefore, studies in future should also take into consideration the quality aspect of systems used for effective learning.

Limitations and Scope for further research:

The study carried out was exploratory and descriptive in nature with a sample size relatively small in comparison to the demographic area. However, Associational and Causal studies can be carried out to identify the potential drivers that influence acceptance digital learning environment and provide managerial suggestions for implementation of digital learning solutions. The model can be tested for goodness of fit and establish interrelationships among the constructs in future studies.

Summary:

There is a need to seek and adopt state-of-the-art learning ecosystem which is learner-centric and that will positively impact the learning and research process in management education. The demand for higher education institutions is to be passionate for coupling innovation and creativity in practicing curriculum to cultivate ubiquitous management education to advance research and upskill the management graduates. Today's status of management education requires more rigour in research in terms of critically evaluating the ecosystem of learning in higher education. The Universities should adopt a holistic approach and focus

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on delivering management education with a keen eye on the '***future of learning***' as the business is continuously evolving towards being digitally driven and the employers look for skills in demand to remain competitive in the market. According to Educause a non-profit organization, Lynch (2018) mentions "The next generation digital learning ecosystem (NGDLE) is conceived as an ecosystem—a learning ecosystem consisting of learning tools and components that adhere to common standards." Ultimately, the next generation of digital learning ecosystem will become more focused on learning rather than administration [10].

The research will highlight significant factors which will have important managerial implications in promoting a digital learning ecosystem in institutions, and to define to what extent it is feasible to have a learning culture and ecosystem which is learner-centric and practical oriented in management education and research. It is necessary to explore this research area of technology acceptance and look at future research opportunities. Further, in this study the existing theories, concepts and models of technology acceptance are taken into consideration to conceive ideas, design strategies, and make propositions to plan and build a framework which acts as a blueprint to be referenced for the purpose of research approach to be adopted and this will serve as a guide to other researchers who may want to analyse the study. This study is Formulative, descriptive and cross-sectional in nature**.** The respondents of this study are management research scholars from universities across the State of Karnataka to ensure diversity among the sample population.

VI. CONCLUSION

The study highlights that there is consensus among researchers that Use of technology for educational, personal and professional advancement has permeated all levels of society and will enrich the learning ecosystem with ease of access to internet through mobile devices such as tablets and smart phones, podcasts to listen to lectures, weblogs to support teachers and students creative content, learning through gamification of lessons, online discussion and feedback forums, multimedia elements blended in text presentations to accommodate varied content delivery have gained prominence in teaching and learning. Augmenting digital learning ecosystem in management education and research is required to overcome the digital divide that has surfaced recently. Technological Innovation and other empowering strategies are particularly important in uplifting management education and in synthesizing digital learning programs which will deliver the educational content effectively anywhere and at any time by thoughtful integration. The innovative instructional practice aided by technology in institutions will engage and motivate students significantly to succeed in a competitive environment in the face of impending digital disruption in management education. Incorporating a new age digital learning environment will help universities with flexibility to monitor learning and research progress. This will provide greater access to design lesson and tools to measure outcomes. With continuously evolving technology the world is going to become more digital every day and the culture of our institutions will help us to navigate to the future and be more globally relevant, therefore it is imperative to accept the new age digital learning environment. Therefore, the present study explores the dimensions relating to acceptance of technology in advancing the realm of digital leaning ecosystem and its impact on the indicators which showcase overarching outcomes of management learning programs and administration in B-Schools can further be explored by carrying out further investigations.

BIBLIOGRAPHY

[1] Ajzen, I., & Fishbien, M. (1975). Belief, attitude, intention, and behavior: An introduction to theory and research. MA: Addison-Wesley.

[2] Ayala, J. (Sping/Summer 2009, Vol 5. No. 2). BLENDED LEARNING AS A NEW APPROACH TO SOCIAL WORK EDUCATION. Journal of Social Work Education, pp. 277-288.

[3] Cooner, T. (2010). Creating opportunities for students in large cohorts to reflect in and on practice: lessons learned from a formative evaluation of students' experiences of a technology-enhanced blended learning design. British Journal of Educational Technology, 271-286.

[4] Feldstein, M. (july 2017). What Is the Next Generation? Creative Commons.

[5] Gomis-Porqueras, P., Meinecke , J., & Rodrigues-Neto, J. (2011). New Technologies in Higher Education: Lower Attendance and Worse Learning Outcomes? JSTOR, pp. 69-83, Vol. 18, No. 1.

[6] Ito, M. (2008, may 13). Living and Learning with new Media: Summary of findings from the digital youth project. Berkely.edu.

[7] Kaplan, Z. M. (2002, pp.204-224). Technology and teaching, In W.J.Mc Keachie (Ed.), Mc Keachie teaching tips: strategies, research, and theory for college and university teachers. Boston: Houghton Mifflin Company.

[8] Lei, J. (2010). Quantity versus quality: a new approach to examine the relationship between technology use and student outcomes. British Journal of Educational Technology, 455-472.

[9] Lei, J., & Zhao, Y. (2010). Technology uses and student achievement: A longitudinal study. Computers & Education, 284-296.

[10] Lynch, M. (April, 2018). WHAT IS THE NEXT GENERATION OF DIGITAL LEARNING ENVIRONMENTS? The Tech Edvocate.

 DOI : 10.18231/2454-9150.2019.0254

[11] Pektas , S. (2012). The Blended Design Studio: An Appraisal of New Delivery Modes in Design Education. Elsevier, 692-697.
[12] Pratt, M., & Rouse, M. (2017). ICT (information and communications technology, or technologies). TechTarget.
[13] Prenksy, M. (2001). Digital natives, digital immigrants. On the Horizon.
[14] Prof. K.D, T., Khan, W., R., S., Burke, A. P., & Take, S. B. (2105). Mobile Learning Application. Loni: International Journal of Scientific and Research Publications, ISSN 2250-3153 .
[15] Proserpio, L., & Gioia, D. (2007). Teaching the virtual generation. Academy of Management Learning and Education.
[16] Secretariat, P. (May, 2013). Golden Jubilee Celebrations of Pandu COllege. Guwahati: Secretariat, President'.
[17] Shahid Raza, S., & Dr. Ritika , S. (2018). TECHNOLOGY AUGMENTATION TO. JETIR (ISSN-2349-5162), 1478-1484.
[18] Shahid Raza, S., & Sinha, D. (2018). Adoption and Outcome of Digital Learning in. JETIR, 37-57.
[19] Sinha, D., Shahid Raza, S., MS, M., & BA, P. (2018). Digital Learning: Adoption of Innovative Pedagogical Model to Scale Management Education. International Journal of Management, Technology And Engineering, 1362-1368.
[20] Pedro Gomis-Porqueras, Jürgen Meinecke and José A. Rodrigues-Neto, New Technologies in Higher Education: Lower Attendance and Worse Learning Outcomes?, Agenda, Volume 17, Number 1, (2010)
[21] Lane, A. (2009). The Impact of Openness on Bridging Educational Digital Divides. The International Review of Research in Open and Open and Distributed Learning, 10(5). Retrieved frohttp://www.irrodl.org/index.php/irrodl/article/view/637
[22] Raybould, J. and V. Sheedy (2005) “Are graduates equipped with the right skills in the employability stakes?” Industrial and Commercial Training, 37, pp. 259-263.
[23] Gulbahar, Y. (2007),"Technology planning: A roadmap to successful technology integration in schools" Computers & Education, vol. 49, no. 4, pp. 943-956.
[24] Song, Y and Siu, CK (2016), Affordances and constraints of BYOD (Bring Your Own Device) for learning and Teaching in higher education: Teachers' perspectives, The Internet and Higher Education, Volume 41, April 2019, Pages 77

WEBSITES

http://mhrd.gov.in

http://ugcmoocs.inflibnet.ac.in/download/moocs

http://ocfskarnataka.in/Universities.aspx

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