

ICT AND HIGHER EDUCATION IN SELECTED COLLEGES IN KERALA

Fathimath Sajna. V

Research Scholar, Department of Economics, Government College Kodanchery, University of Calicut, Kerala, India

DOI: 10.46609/IJSSER.2022.v07i04.003 URL: <https://doi.org/10.46609/IJSSER.2022.v07i04.003>

Received: 28 March 2022 / Accepted: 10 April 2022 / Published: 30 April 2022

ABSTRACT

Triggered off in the early 1990s, ICT has made a big way inroad into our Higher Education Scenario. The presence of ICT has been felt in the Higher Education System at different levels such as Class Rooms, Teaching Methodology, Tools and Techniques, Delivery of Teaching Materials and Administration of Education, off course. It is high time that a stock taking is done on the various aspects of it. The study examined the adoption and implementation of ICT in Higher Education at different Government Colleges in Kerala. Hence, this study also intends to compare the infrastructure such as Administration and Finance Management, Admission and Examination, Teaching and Learning and Library Management in that are seen in different government colleges in Kerala. The study is based both primary and secondary level information,. Primary level information were obtained through the method of survey. The study chose 5 Government Colleges functioning in Kerala. The study found that Government Colleges in Kerala are using ICT for various purposes.

Keywords: ICT, Higher Education, State Universities, Government Colleges, Administration, Teaching and Learning and Library Management.

I. INTRODUCTION

This is the age of Knowledge Revolution across the globe and none of the economies can escape it. All the productive sources of growth are being replaced by the most vital factor, Knowledge , and, now a days and ours is a Knowledge Society. Perhaps the credit for the prophetic vision on the social transformation in the current century towards the Knowledge Economy goes to Peter.F.Drucker, the celebrated Social Ecologist, through his celebrated works on global polity

and society. In his monumental work, he has visualized the current changes in the society and polity towards a knowledge based economy in which knowledge will replace all the other productive factors such as capital and labor and it will become the prime source growth and hence economic development will focus on it. The World Development Report coined as *Knowledge for Development 1998/99*, in fact, triggered off a deep and wide interest among the policy makers and experts across the globe. Coincided with this came the High Level Policy makers meet to share knowledge share knowledge strategies among key stakeholders from Brazil, India and China—potential knowledge superpowers representing 45 percent of the world's population. All these provided the required momentum for the movement towards the conceiving and designing the Knowledge Economy in India. As a result, National Knowledge Commission of India was formed and the policy document India and the Knowledge Economy: Leveraging Strengths and Opportunities” was drafted in 2005.

Globally, perhaps, Education is the most prominent sector, which has experienced metamorphosis, in unfathomable velocity and dimensions, within a short span of time. Introduction of Information Communication Technology to its well knit fiber is the most revolutionary changes, it has witnessed, apart from the series of structural and peripheral changes such as the entry of market, lifelong nature of education etc. It is during the early 1990s that the proposal for introducing the magic wand of Information Communication Technology (here after ICT) to Higher Education (here after HE) has been mooted by UNESCO, based on the Dakar Frame Work of Action.

II. OBJECTIVES

- To examine the status of ICT diffusion in the academic and administrative structures of HEIs in Kerala;

III. METHODOLOGY

This study addresses the ICT programs of Government Colleges in Kerala. The study is based both primary and secondary level information. Primary level information were obtained through the method of survey. To get an exact reflection of the actual data, Five Government Colleges were selected for the study. From the South, Centre and North part of Kerala. The respondents from the colleges include teaching staff, non-teaching staff and students. Various ICT areas were identified that can be used for good governance of colleges. Some of the commonly used areas are Administration and Finance Management system, Admission and Examination, Teaching and Learning, and Library Management.

IV. ICT AND HIGHER EDUCATION IN SELECTED GOVERNMENT COLLEGES IN KERALA

4.1 Administration System of Different Colleges in Kerala

The ICT can be effectively used in Administration and Finance Management of Colleges. The study recognised that each college was trying to enhance the use of ICT. For Salary preparation and Leave Management, Service and Payroll Administrative Repository for Kerala (SPARK) facility is used in all Colleges. SPARK is an attempt to bring the payroll and finance related activities of Kerala State employees within a single application. The system has been developed with a view to cater to the Administration, Payroll and other accounts activities of Government establishments. Each employee is allotted with a unique Permanent Employee Number (PEN) through the system.

Table:1

ICT use in Administration and Finance Management of Government Colleges

Sl No	Activities	Government Arts& Science College	T.M. Jacob Memorial Government College	Government College Chittur	Kunjukrishnan Nadar Memorial Government Arts& Science College Kanjiramkulam	Government College Kottayam
1	Digital Document Filing System	–	–	–	–	–
2	Salary Preparation	✓	✓	✓	✓	✓

3	Salary details and Leave details	–	–	–	–	–
4	Pension	–	–	–	–	–
5	E-payment	–	–	✓	✓	–

The Table 1 describes the use of ICT in Administration and Finance Management of selected Government Colleges in Kerala. Related to Salary preparation of all Government colleges are done by ICT, while leave management and pension did not do so. While only two colleges provides E-Payment facility, i.e. Government College Chittur and Kunjikirishnan Nadar Memorial Arts and Science College. Whereas Digital filing system, no one is using this technology in the Government colleges of Kerala.

4.2 Admission and Examination System of Different Colleges in Kerala

Single window admission system is introduced to undergraduate and post graduate classes of all colleges in Kerala. And they have implemented online exam notification, online hall ticket issuing and online examination results etc. The research portal which is a single point securely hosted solution, is customized to seamlessly integrate, search and manage the Ph.D research activities of the colleges.

Table:2

ICT use in Admission and Examinations of Government Colleges

Sl No	Activities	Government Arts& Science College	T.M. Jacob Memorial Government College	Government College Chittur	Government Arts& Science College Kanjiramkulam	Government College Kottayam
-------	------------	----------------------------------	--	----------------------------	--	-----------------------------

1	Single Window Admission System	✓	✓	✓	✓	✓
2	Online exam Notifications	✓	✓	✓	✓	✓
3	Online Hall Ticket Issuing	✓	✓	✓	✓	✓
4	Online Examination Results	✓	✓	✓	✓	✓
5	Research Portal	–	–	✓	✓	✓

The Table 2 shows details on ICT use in Admission and Examinations of Government Colleges in Kerala. Single window admission system introduced to all Government Colleges. And they have implemented online exam notification, online hall ticket issuing and online examination results etc. While Research portal provided only on three selected colleges.

4.3 Teaching and Learning Process of Different Colleges in Kerala

Internet and Wi-Fi facility are available in the central library of the all Colleges, in all departments, administrative office and computer centers. Faculty members can access internet in their departmental rooms, in the library, in the computer laboratory and in the teachers' common room in the campus. Students can access internet in the computer centers only. Similarly, use of ICT facilities available in the colleges is required to the final year degree classes and post graduate students, their seminar presentation to familiarize them with the modern technology.

Table: 3

ICT use in Teaching and Learning of Government Colleges

Sl No	Activities	Govern ment Arts& Science College	T.M. Jacob Memori al Govern ment College	Governm ent College Chittur	Government Arts& Science College Kanjiramkul am	Government College Kottayam
1	Virtual laboratories	-	-	-	✓	✓
2	MOODLE Platform	-	-	-	-	-
3	Wi-Fi facility in the campus	✓	✓	✓	✓	✓
4	e-Book Library in various departments	✓	✓	✓	✓	✓
5	e-resources through INFLIBNET	✓	✓	✓	✓	✓
6	e-learning resources (NPTEL, NME-ICT, Khan Academy, Yale University)	-	-	-	-	-
7	Projectors and OHPs	✓	✓	✓	✓	✓
8	Smart class rooms	✓	✓	✓	✓	✓

9	Digital Language Lab for training in communication skills	✓	✓	✓	✓	✓
10	Mobile applications for assignments and to share questions	–	✓	✓	✓	✓
11	Webinar	–	–	–	–	–
12	Mark uploading	✓	✓	✓	✓	✓
13	e-content uploading	–	✓	✓	✓	✓

The Table 3 exhibits the ICT use in Teaching and Learning of Government Colleges. Only minimal number of government colleges provides Virtual laboratory facility. Whereas entire colleges provide in every department smart class room with interactive boards, digital audio system and LCD projector. Internet and Wi-Fi facility are available in campus. And also all colleges provides digital language lab. Government colleges does not provide E-learning services. Majority of college provides Mobile application facility for assignments and to share questions. While Webinar technology does not provide Government Colleges.

4.4 Library Management of Different Colleges in Kerala

The main aim of library is to make easily available services to students, faculty and non-faculty members. All college libraries offer Open access/ need based acquisition services in Kerala. Open Access is the free, immediate, online availability of research articles combined with the rights to use these articles fully in the digital environment. It's needed modern update for the communication of research that fully utilizes the Internet.

Table: 4

ICT use in Library Management of Government Colleges

Sl No	Activities	Government Arts & Science College	T.M. Jacob Memorial Government College	Government College Chittur	Government Arts & Science College Kanjiramkulam	Government College Kottayam
1	Open access/need-based acquisition	✓	✓	✓	✓	✓
2	DDC (Subject Wise Classification) scheme	✓	✓	✓	✓	–
3	Automated Library	✓	✓	✓	✓	✓
4	Bar-coded issue/return system	✓	✓	✓	✓	✓
5	Institutional repository (D space) for reference	–	–	–	–	–
6	Book bank facility	–	–	–	–	–
7	Digitalization of Library Documents	✓	✓	✓	✓	✓

8	Digitalization of Question Papers	-	✓	✓	✓	✓
9	INFLIBNET/IUC facilities	✓	✓	✓	✓	✓
10	OPAC	✓	✓	✓	-	✓
11	Uploading of theses to shodhganga	-	-	-	-	-
12	Reading List/ Bibliography compilation	✓	✓	-	✓	-
13	Plagiarism checking	-	-	-	-	-
14	Reprography/scanning	✓	✓	-	✓	✓
15	Inter Library Loan Services& Document delivery service	-	-	-	-	-
16	Manuscripts	-	-	✓	-	✓
17	Reference	✓	✓	✓	✓	✓
18	Downloads & Printouts	✓	✓	✓	✓	✓
19	Electronic Theses& Dissertation (ETD)	✓	✓	✓	✓	✓

	Lab					
20	Specialized Research Lab	-	-	✓	✓	✓
21	Electronic Lab for Visually challenged	✓	-	-	-	-
22	Talking Book Library(for blind)	-	-	-	-	-
23	Brail Book Library	-	-	-	-	-
24	RFID/CCTV system implemented	-	-	✓	-	-
25	Library orientation programs are conducted	-	-	-	-	-
26	Training in software and other such activities	-	-	-	✓	✓

The Table 4 shows that ICT use in Library Management of Government Colleges. Almost all colleges provides DDC (Subject wise classification) scheme except Government College Kottayam. While Institutional repository and Book bank facility does not provide in Government colleges. Government College fully provides INFLIBNET facility. Whereas, they provides OPEC services not fully. Government colleges does not provide Library orientation programs, likewise they provide very little training in software. And Government College does not offer plagiarism checking software. RFID/CCTV very little provide in Government Colleges. Only one Government college provides service on Electrical lab for visually challenged students.

V. CONCLUSION

Related to Salary preparation of all Government colleges are done by software, while leave management did not do so. only two colleges provide E-Payment facility, ie Government College Chittur and Kunjikirishnan Nadar Memorial Arts and Science College. In Digital filing system no one is using this technology in the colleges of Kerala. Whereas, single window admission system is introduced to all colleges in Kerala. Internet and Wi-Fi facility are available in the central library of the all Colleges, in all departments, administrative office and computer centers. In all colleges students can access internet in the computer centers only. Only minimal number of government colleges provides Virtual laboratory facility. Majority of college provides Mobile application facility for assignments and to share questions. Entire colleges is an INFLIBNET/NLIST corner is arranged in the library to facilitate accessing e- resources by the students .And also they are all provides E-book library in various department. Government College faculty members did not use the facilities of various teaching aids, e-learning sites, NPTEL and NME- ICT resources. Only minimal number of colleges using Webinar technology. All college libraries offer Open access/ need based acquisition services in Kerala. Entire college also provides DDC (Subject wise classification) scheme. This process helps the user to arrange, organize and make a logical sense of articles which also assists the user to locate them in an easy manner. Each college in Kerala provides Automated Library system, likewise, implemented Bar code issue and return system.

References

- Balanskat, A., Blamire, R., & Kefala, S. (2006). The ICT impact report: a review of studies of ICT impact on schools in Europe. Brussels: European Schoolnet.
- Becta. (2006). The Becta Review 2006: Evidence on the progress of ICT in education', UK: Becta. Retrieved March 01, 2012 from http://becta.org.uk/corporate/publications/documents/The_Becta_Review_2006.pdf
- Cox, M., J., & Marshall, G. M. (2007). Effects of ICT: do we know what we should know?', *Education and Information Technologies*, 12: 59–70.
- Drucker, Peter .F (1994) "The Age of Social Transformation" *The Atlantic Monthly*, November 1994. Pp 1-20
- Empirica. (2006). Benchmarking access and use of ICT in European schools 2006. Bonn: Empirica. Retrieved February 02, 2012 from <http://www.empirica.com/publikationen/documents/No08->

- Fuchs, T., & Woessmann, L. (2004). Computers and student learning: bivariate and multivariate evidence on the availability and use of computers at home and at school, CESifo Working Paper. No. 1321. November. Munich.
- Goolsbee, A., & Guryan, J. (2002). The impact of internet subsidies in public schools, NBER Working Papers 9090, National Bureau of Economic Research, Inc.
- GOI (1999) National Task Force on Information Technology and Software Development: IT Action Plan Part III- Long Term National IT Policy,
- Gracia- Valcarcel Minoz-Repiso and F.J.Tejedor. (2005) "Use of information and Communication Technology in Higher Education and Lecture Competencies"
- Gülbahar, Y., (2008). ICT usage in higher education: a case study on pre-service teachers and instructors, *The Turkish Online Journal of Educational Technology*, 7(1): 32-37.
- R. Krishnaveni and J. Meenakumari (2010) "Usage of ICT for information administration in higher education institutions-A Study," *International Journal of Environmental Science and Development*, 2010, vol.1, no.3
- B. Loing, "ICT and higher education - general delegate. of ICDE at UNESCO," 9th UNESCO / NGO, Collective Consultation on Higher Education, 2005, 6-8 April
- Neeru ,Snehi (2009) "ICT in Indian Universities and Colleges: Opportunities and Challenges" *Management & Change*, Volume 13, Number 2 (2009) IILM Institute for Higher Education.
- O. Ron, "The role of ICT in higher education for the 21st century: ICT as a change agent for education, Edith Cowan University, Perth, Western Australia.
- Sarkar, Sukantha (2012) "The Role of Information and Communication Technology (ICT) in Higher Education for the 21st Century" *The Science Probe Vol. 1 No. 1 (May 2012)* **Page No- 30-41.**