



A Study on ICT role for Stakeholders in various Online Applications of Examination Management Systems

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ABSTRACT

Information and communication technology, or ICT, has grown in popularity and importance as a tool for higher education. Although ICT use has increased significantly, its full potential has yet to be realized. It is a helpful tool for establishing excellent governance in any business. The importance of ICT as a key instrument for good governance has now been recognized by developing nations, and they have begun to adapt. ICT-powered government is sometimes referred to as "e-governance." In India, university test systems are run entirely by hand. The manual evaluation method has problems with accuracy and causes delays in the timely recording of tests. To provide universities with safe, effective, transparent, and all-inclusive e-government solutions, ICT in the form of a campus management system (CMS) is a useful instrument for integrating and automating examination system operations.

KEY WORDS: *ICT, campus management system (CMS), sustainable development.*

INTRODUCTION

One of the fundamental pillars of contemporary society is information and communications technology, or ICT. Along with reading, writing, and arithmetic, many nations today consider ICT to be a fundamental ability that all students must master. ICT has produced cutting-edge apps that have simplified lives in numerous industries. ICT makes the business climate better, helps firms succeed, and gives governments an effective infrastructure. The World Bank reported in 2009 that there is a 1.3 percent rise in economic growth for every 10 percent increase in high-speed internet connections. The Forum notes in its report on the

Southern African Development Community's e-Readiness that governments and development agencies' efforts to construct infrastructure in the developing world have mostly concentrated on supplying computer gear, satellite connections, and fiber-optic cabling. (World Bank, 2002) The globe underwent a significant change as a result of the growth of ICTs (Kuyoro Shade, Awodele, & Okolie, 2012). By connecting the world's poorest nations into the global economy and facilitating access to international markets, ICT has been recognized by numerous international established agencies as a critical component in the development of these nations. Any device that stores, retrieves, manipulates, transmits, or receives digital information is considered ICT.

For many people, ICT has become an essential component of daily life. It is anticipated that the trend of ICT becoming more and more important in people's lives would continue, and that ICT literacy will eventually become a necessary skill for social, professional, and personal life. Individuals' behavior in their daily activities is being directly impacted by these. A catalyst is required in the socioeconomic environment to bring about social change in human growth. The way we communicate for social and professional purposes has changed significantly as a result of the widespread use of communications technologies, the majority of which are technology-led. Television, mobile phones, computers, the internet, and other new information technology are all evolving quickly and having an impact on social life. In the domains of public administration, business, education and training, health, employment, the environment, agriculture, and science, ICT applications can promote sustainable development.

Our lives have been significantly enhanced by the creation and application of technology. In order to complete certain duties in our lives, we rely on technologies. Life has grown much more comfortable with the help of numerous modern technologies. Nearly every aspect of our lives and enterprises is utilizing technology. Sitting comfortably at home, we can buy or sell goods, book tickets for performances, book tickets for trains, buses, or flights, and pay our expenses. In addition to many other uses, ATMs can be used to withdraw cash at any time. Technology is used to carry out each of these procedures.

In the past, banks and other financial institutions manually managed their data. With the aid of computers, it is now easily updated and maintained. Data such as account holder details, name, address, email, age, date of birth, phone number, balance, etc., may be quickly and simply obtained with the aid of the system. Additionally, technology has made purchasing and selling goods much more flexible and safer with the advent of e-payment platforms like Square Wallet App and Paypal.com. Customers can use internet banking

to conveniently access their accounts. When one does not have cash on hand to do financial transactions, technology has made credit cards, debit cards, and smartcards available.

Letter writing and the mail service were the only ways to communicate in the past. Business letters can now be sent by email or fax and sent to the designated recipient in a matter of seconds thanks to the availability of numerous sophisticated communication tools. Individuals no longer have to wait for official reminders that arrive in the mail. With the use of communication methods like emails and mobile phones, the reminders are already scheduled and delivered at the appropriate moment.

Everyone is quite busy these days due to demands. People may now interact digitally at any time thanks to the growth of social networking sites like Facebook and smartphone apps like Hike and WhatsApp.

RESEARCH METHODOLOGY

The study's primary goal is to investigate how Nashik University of Health Sciences (CCSU) teaching and non-teaching staff members view the usage of ICT in exam system administration.

RESEARCH DESIGN

The CCSU researcher employed a quantitative methodology, also known as descriptive research, for this investigation.

By producing statistical information or converting data into functional statistics, the quantitative approach aims to estimate the issue. The phrase "study survey" typically refers to a method of gathering information from a specific population or sample, and it typically employs questionnaires or interviews as a surveying tool.

Additionally, sample surveys are a crucial instrument for gathering and analyzing data from certain people. Since the quantitative research approach gathers numerical data in order to clarify a certain occurrence, it seems that there is an instant answer to the particular queries.

The researcher has developed a number of questionnaires from earlier investigations that focus on the attitudes and perspectives of people in higher education on information and communication, namely in the area of examination system management, in order to carry out this study.

After giving it some thought, the questionnaire was adjusted from a number of sources to meet the needs of the study. The questionnaire was split into two sections by the researcher: The subsequent:

1. Section on Demographics
2. Structured Questionnaire

The two sections of the standardized questionnaire are separated according to:

1. ICT areas in Examination
2. Quality of ICT in Exam Management.

SAMPLING CRITERIA:

1. Under the CCSU, the college ought to be a health science institution.
2. The reply ought to be an administrative employee of the CCSU as well as a teaching staff member in health science colleges.

RESULTS AND DISCUSSION

ICT and its usage in different online applications of examination system

Table1-ICT role for Stakeholders in various Online Applications of Examination Management Systems

Parameter	Scale	Freq.	%	P Value
Online updating of Teacher Database helps respective teachers to update their credentials from any place without any difficulty and without any correspondence	Strongly Disagree	8	2.0	<0.0001
	Disagree	2	0.5	
	Uncertain	5	1.25	
	Agree	105	26.3	
	Strongly Agree	280	70.0	
Online Question Paper Setting System helps to set better question paper with minimum errors such as	Strongly Disagree	7	1.8	
	Disagree	3	0.8	

spelling errors, grammatical errors, stem construction of question, duplication of questions and options, etc.	Uncertain	8	2.0	<0.0001
	Agree	92	23.0	
	Strongly Agree	290	72.5	
Online submission of Dissertation by the student to the college has increased efficiency, accountability, transparency, printing and handling of multiple copies and it is eco- friendly system that has minimised printing cost of five copies	Strongly Disagree	7	1.8	<0.0001
	Disagree	0	0.0	
	Uncertain	8	2.0	
	Agree	85	21.3	
	Strongly Agree	300	75.0	
Online submission of Dissertation by the college to the University has increased efficiency, accountability and handling of multiple copies as compared to submission of five physical copies	Strongly Disagree	6	1.5	<0.0001
	Disagree	2	0.5	
	Uncertain	8	2.0	
	Agree	74	18.5	
	Strongly Agree	310	77.5	
Online Internal Assessment Marks Entries module has increased efficiency, accuracy and accountability in submission of Internal Assessment Marks by the College	Strongly Disagree	5	1.3	<0.0001
	Disagree	1	0.3	
	Uncertain	0	0.0	
	Agree	70	17.5	
	Strongly Agree	324	81.0	
Online Entries of Practical Examination Marks has increased efficiency in submission of Practical Marks and has eliminated manual errors of the Examiners	Strongly Disagree	6	1.5	<0.0001
	Disagree	1	0.3	
	Uncertain	4	1.0	
	Agree	60	15.0	
	Strongly Agree	329	82.3	
Online Entries of Theory Marks at Central Assessment Programme (CAP) has increased efficiency, accountability as well as has eliminated manual errors of the examiners	Strongly Disagree	6	1.5	<0.0001
	Disagree	2	0.5	
	Uncertain	10	2.5	
	Agree	62	15.5	
	Strongly Agree	320	80.0	

Since all of the statements that were tested were about updating information, submitting a dissertation, or evaluating marks—or, in fact, because of this, the mark entries all suggest that the ICT has greatly aided them—the above table implies that, following hypothesis testing, it is discovered that ICT does assist faculties in effectively managing examination systems. This has been confirmed through statistical testing.

ICT and time factor

Table2-ICT role in various Online Applications for Effective Examination Management Systems

Parameter	Scale	Freq.	%	PValue
Online publication of Time Table of University Examinations helps the students and the colleges to access it from anyplace	Strongly Disagree	6	1.5	<0.0001
	Disagree	0	0.0	
	Uncertain	0	0.0	
	Agree	63	15.8	
	Strongly Agree	331	82.7	
Online Publication of Theory Centres of University Examinations helps the students / colleges to view it from any place and it helps them to measure convenience of the Theory Centre	Strongly Disagree	6	1.5	<0.0001
	Disagree	1	0.3	
	Uncertain	5	1.3	
	Agree	70	17.5	
	Strongly Agree	318	79.5	
Online availability of Hall Tickets and Seat Summary eliminates postal delay and has increased efficiency in distribution process to the respective students	Strongly Disagree	6	1.5	<0.0001
	Disagree	1	0.3	
	Uncertain	1	0.3	
	Agree	67	16.8	
	Strongly Agree	325	81.2	
Online issuance of appointments of Centre Incharge /Centre Observer/IVS / CAP Custodian / Practical Examiners helps to their	Strongly Disagree	6	1.5	
	Disagree	0	0.0	
	Uncertain	1	0.3	
	Agree	72	18.0	

appointment from any place without carrying physical copy of appointment with quick and easy access in their logins	Strongly Agree	321	80.3	<0.0001
Online CCTV monitoring system facilitates to have access to keep watch on Examinees in the Examination Hall that helps to curb down malpractices at Theory Centre Level	Strongly Disagree	7	1.8	<0.0001
	Disagree	3	0.8	
	Uncertain	4	1.0	
	Agree	75	18.8	
	Strongly Agree	311	77.8	
Online forwarding of Dissertation copy for evaluation by the Subject Expert / Evaluator has eliminated postal delay and has increased efficiency of delivery, accountability, improvement in assessment quality as well as it facilitates submission of evaluation report on a single click	Strongly Disagree	7	1.8	<0.0001
	Disagree	5	1.3	
	Uncertain	12	3.0	
	Agree	66	16.5	
	Strongly Agree	310	77.5	

We can conclude from the above table that the hypothesis has been tested and that all of the test statements have passed and proven to be good because the p-value is less than 0.05. Therefore, we can conclude that whether the issue is with the availability of hall passes, seat summaries, or forwarding dissertations for external evaluation, or even with the appointment of the examination in charge or other staff, it is easier to use ICT, which saves a lot of time and increases the efficiency of the examination system.

CONCLUSION

There is a difference between the perceptions of teachers and examination administration staff regarding the user-friendliness of ICT in the examination management system. Teachers feel that colleges have a hard time viewing the status of results, while examination administration staff sees that ICT is not working to its full potential in managing examination-related tasks like hall ticket availability. This is because ICT takes time to perform online operations, which also affects the issuing of hall tickets and the appointment of various center in-charges, center observers, internal vigilance squads, and practical examiners. As a result, colleges should concentrate on upgrading their ICT infrastructure and streamlining the processes involved in the

examination management system. Additionally, the results indicate that there is a greater degree of variation in how CCSU's test administration staff are perceived when it comes to online hall ticket availability, which eliminates delays, as well as appointments for the center observer, center in-charge, internal vigilance squad, and practical examiner.

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