

ICT Impediments in Performing Roles and Responsibilities by Teaching Professionals in the Higher Education Institution

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Abstract

Information and communication technology is an instrument in addressing some of the issues of Indian higher education however; there are certain drawbacks to using ICT to enhance teaching and learning. The present research was carried out in The Maharaja Sayajirao University to study the impediment faced by them in the use of ICT in their professional work. Quantitative data was collected from two hundred and ninety faculty members through the purposive and convenient sampling method. The data indicate that faculty members faced technological infrastructure-related impediments such as lack of smart boards, lack of computers, uneven bandwidth of internet, slow internet connection. It is suggested that an adequate atmosphere be developed in the institution that would encourage faculty members to use ICT.

Keywords: ICT, University, Impediments, Teaching, and Learning, Research

Introduction

Higher education is viewed as an effective way of establishing a knowledge-based society; therefore it plays an essential part in a country's development. India's higher education system is the world's third-largest in terms of students, next to China and the United States. India's higher education sector observed an enormous increase in the number of universities, institutions, and colleges since independence (Sheikh 2017).

ICT can be used to alleviate some of the challenges that faced by higher education. Implementing ICTs in higher education has far-reaching consequences for the whole educational process, from funding to technology use in addressing important concerns such as access, equality, management, efficiency, pedagogy, quality, research, and innovation. ICT applications give universities a competitive advantage by improving student and faculty services, increasing efficiency, and creating more engaging learning environments.

The primary activities of higher education are inextricably linked to the tasks and responsibilities of college and university faculty members. To carry out the academic work of

their individual institutions, college and university faculty members engage in research, teaching, and service. Each of these responsibilities allows faculty members to create and distribute knowledge to their peers, students, and external audiences. ICT is very essential in performing all these roles and responsibilities. In COVID 19 pandemic teachers have to perform all their duties through ICT only. As a result, the use of information and communication technology (ICT) to promote education and development has long been a cornerstone of educational strategy and policy.

The Government of India has initiated a variety of national as well as state-specific schemes that operate alongside a large number of privately led IT initiatives at school and higher education levels. According to National Education Policy 2020, a platform for the free exchange of ideas on the use of technology to enhance learning, assessment, planning, administration, and so on, both for school and higher education will be provided. The policy emphasized “creating digital infrastructure, development of online teaching-learning platforms, and tools, creation of virtual labs and digital repositories, establishing standards for content, technology, and pedagogy for online teaching-learning, training teachers to become high-quality online content creators, designing and implementing online assessments”. (Ministry of Human Resource Development, 2020).

Learning should never cease, even in times of difficulty, as someone correctly remarked. During COVID 19, information and communication technology, which is a wonderful helper and expeditor of online learning, has maintained the learning process unbroken. Even though students and faculty face a barrier of social distancing in this digital era, various businesses, including education, are harmed. However, ICT has decreased this hurdle of social distancing and lockdown with the assistance of several digital and online initiatives and solutions (Gupta, 2020). Nonetheless, we can't deny the fact that here in such extreme situations; COVID-19 has only accelerated the adoption of technology to make quality education accessible to everyone (Dhanwan, 2020).

Educators encounter several challenges while adopting ICTs in the classroom, in addition to the benefits. The potential afforded by ICT to enhance teaching and learning are not without drawbacks; several barriers may deter educators from integrating ICT into the classroom and from using ICT to introduce supporting materials. Similarly, educators at The Maharaja Sayajirao University of Baroda have certain difficulties in incorporating ICTs into their teaching, research, and administrative activities. This research looks into the challenges professors encounter when it comes to using ICTs in their professional job. Examining such

impediments can help educators come up with knowledge to help them overcome barriers to ICT use and encourage ICT integration in everyday education.

Aim of the Study

1. To study the impediments faced by the faculty members in using ICT in relation to Non-Human Resources and Human Resources.
2. To study the differences in the non-human resources and human resources related impediments faced by the faculty members in the use of ICT concerning to their background information.

Null Hypothesis

In respect to chosen variables, there will be no significant variations in the non-human resource and human resource-related impediments experienced by faculty members.

Methodology

Faculty members from the various faculties of the Maharaja Sayajirao University of Baroda made up the study's population. A survey method was used to collect quantitative data. Samples of 290 respondents were selected by using the purposive-convenient sampling method. A questionnaire developed by the researcher and validated by experts was used for collecting the data from the respondents. The data was gathered by the investigator personally. The obtained data was analyzed using a variety of statistical methods. The data was coded and analyzed with the use of computer software called M. SPSS and S. Excel The obtained data was measured using frequency, percentage, t-test, and ANOVA.

Findings and Discussion

Background of the faculty members

According to the result of the survey, more over 34.8 % of the faculty members were young in age, while thirty one were in their middle years. Female faculty members made up slightly less than the majority (58.3%), while male faculty members made up 41% of the total. Nearly half of the samples were Temporary Teaching Assistants and Temporary Assistant Professors, according to the data. Twenty-nine percent were Assistant Professors, whereas nearly fifteen percent (14.5%) were professors. The data also indicate that thirty-seven percent of the faculty members had five to fifteen years of experience in teaching and three to ten years (40%) of experience in research.

Wi-Fi is available to faculty and students at the Maharaja Sayajirao University of Baroda. The majority of the teachers (69 %) had access to Wi-Fi provided by the university on campus, according to the study's findings. Cabin/staff rooms of faculty members had a desktop with internet connectivity (64.1%) whereas near to majority (59.0%) mentioned that classrooms were equipped with LCD projector. In the common area, more than forty percent of them had access to a desktop with internet connectivity, scanner, and printer. They also mentioned that the LCD projector (27.9%), computer with no internet connection (21%), and interactive whiteboard (15.9%) were all available in the common area. This study demonstrates that even if teaching staff and students do not have access to technology in their cabins or classrooms, they may use it in the common area.

Non-Human Resources Related Impediments

The non-human resources-related impediments include the technology-related impediments in the present study. The finding present that less than forty percent (38.4%) of the faculty members faced a moderate level of impediments whereas twenty-seven percent of the faculty members faced more non-human resources-related impediments in the use of ICT in their professional work. It means that almost half of the faculty members faced technology-related problems. According to the analysis of variance, there was a substantial difference in non-human resources-related impediments experienced by faculty members when it came to their perspectives on ICT, but no such difference was observed in technological infrastructure. The analysis of variance highlights no significant differences in the non-human resources-related impediments faced by faculty members concerning to their age, designation, ICT competency. It shows that the age-wise, designation-wise, competency wise and use-wise differences have not existed concerning the non-human resources-related impediments. There was dissimilarity in the impediments faced by faculty members belonging to Humanities and Science and Technology. This can be interpreted that the faculty members belonging to Humanities faced more non-human resources-related impediments than their counterparts.

Human Resources Related Impediments

A higher percentage of the faculty members (36.2%) faced fewer impediments related to human resources in using ICT. It is a very good indication that a higher percentage of them faced a few problems. It shows that faculty members might receive enough support from the technical staff of the university. They may be self-efficient in using various ICT tools. Furthermore, the data shows that little less than one-third (34.5%) of the faculty members had

faced human resources-related impediments moderately whereas near to thirty percent (29.3%) had more human resources-related impediments. These may be those faculty members who had less competency in using ICTs, lack of ICT knowledge, and less motivation for using ICT. Their lack of confidence and competency may be the cause of more human resources-related impediments faced by them. The findings of the study revealed that there were no significant differences in the human resources-related impediments faced by faculty members concerning selected variables of the study.

The findings show that faculty members faced impediments at a moderate level which were more related to technical aspects and training from a university such as uploading data on the website, online applications, lack of training from university, and library. The impediment related to their skills were faced less by them such as no interest in the integration of ICT in teaching, lack of skills using smart boards, unable to use online applications, lack of time, downloading documents from the website. It indicates that faculty members faced more impediments related to training and support from the university than their skills and attitude towards ICT.

Conclusion

The study looked at ICT in The Maharaja Sayajirao University and the impediments faced by teachers in its use in their teaching, research, and administrative work. It looked at some of the roadblocks that prevent university teachers from integrating ICT into their teaching and learning. The Maharaja Sayajirao University's teaching staff was found to be favourable to the use of ICT in their daily operations, according to the findings of the study. They, on the other hand, show a lack of interest for the use of ICT in teaching, research, and administration. Microsoft Office and internet-based services are used by a huge number of university teachers for personal and research purposes. Universities lack the necessary infrastructure to adopt ICT procedures in teaching, research, and administration. Universities' teaching staffs are not properly trained to use ICT technologies in teaching and research. University teachers lack skills for integrating ICT effectively in their professional work.

It is suggested that an enabling atmosphere should be developed in the institution that would encourage faculty members to use ICT. Faculty members should be encouraged to expand their ICT knowledge and abilities. To tackle the current educational difficulties, ICT infrastructure should be supplied. Efforts should be made to reduce and suppress the factors that are militating against the usage of ICT in the institution. An efficient and sustainable ICT policy and initiatives that will promote the use and integration of ICT by faculty members

should be put in place. Encouraging lecturers to include ICT into their professional job may assist in providing them with the skills and knowledge necessary for efficient ICT integration in professional work.

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