Job Performance of College Teachers in Higher Education with Reference to ICT

Dr. B. Bhavya[1]
Assistant Professor, Department of Management Studies,
Sathyabama Institute of Science and Technology (Deemed to be University), Chennai 600119.
bhavya.belle@gmail.com

Dr. Neeraz[2]
Principal, Sadbhavna College of Education for Women, Raikot, Ludhiana , Punjab.
Neeraz.sharma9@gmail.com

Dr. Shagufta Parween[3]
Assistant Professor & Head, Department of English,
Chaitanya Bharathi Institute of Technology, Hyderabad.
daisyazim@gmail.com

J. A. Bagawade[4]
Assistant Professor, Department of Physics, VPASC College, Baramati.
chimanpurejayu@gmail.com

Shobhit Kumar[5]
Assistant Professor, School of Business Management
IFTM University, Moradabad, Uttar Pradesh
shomani1994@gmail.com

Dr. S. R. Swarnalatha[6],
Assistant Professor, Department of Computer Science,
Patel Institute of Science and Management, Bangalore.
swarni.ila@gmail.com

Abstract

The significance of evaluating the job performance of college teachers in higher education concerning ICT integration lies in its profound implications for the quality of education, institutional advancement, and student success. As technology continues to permeate every aspect of society, including education, it is imperative to assess how effectively educators are adapting to these changes and utilizing ICT tools to enhance teaching and learning experiences. Assessing job performance in ICT integration provides insights into the effectiveness of current pedagogical practices and the extent to which technology is being leveraged to improve instructional outcomes. By identifying areas of strength and weakness among college teachers, educational institutions can develop targeted professional development programs to enhance technological proficiency and promote innovative teaching methodologies. Assessing the job performance of college teachers in higher education concerning ICT integration is of paramount significance for fostering innovation, enhancing institutional competitiveness, and promoting student success. By systematically evaluating teacher performance in this domain, educational institutions can identify areas for improvement, allocate resources effectively, and cultivate a culture of continuous learning and adaptation in the digital age.

Keywords: Technological Competency, Higher Education Resource Constraints, Job Performance Time Constraints, Resistance to Change and Pedagogical Alignment

Introduction

The role of Information and Communication Technology (ICT) in enhancing teaching effectiveness and student engagement within higher education is multifaceted and increasingly significant. ICT tools offer a diverse array of resources and opportunities for college teachers to enrich their teaching practices and create dynamic learning environments. These resources can supplement traditional teaching materials, providing diverse and engaging content that caters to different

742

learning styles and preferences. Moreover, ICT facilitates communication and collaboration among students and teachers, breaking down barriers of time and space through online discussion forum. This fosters a sense of community and encourages active participation, allowing students to interact with course materials and peers in meaningful ways. Features such as online quizzes, surveys, and automated grading systems facilitate timely and constructive feedback, promoting continuous improvement and student engagement. The effective integration of ICT in teaching practices empowers college teachers to create dynamic, interactive, and student-centered learning experiences that enhance teaching effectiveness and foster deeper engagement with course content. Zhao and Frank (2003)[10] explored the intricate dynamics influencing the adoption and implementation of technology in educational settings. Through an ecological lens, they dissect the interplay of individual, organizational, and contextual factors shaping the integration of technology within schools. Their analysis delves into individual aspects such as teachers' attitudes, beliefs, and skills related to technology, as well as organizational factors like school culture, leadership, policies, and resource allocation. Furthermore, they consider contextual elements such as community expectations, socioeconomic factors, and technological infrastructure. By comprehensively examining these factors, Zhao and Frank (2003) [10]provide valuable insights into the complexities inherent in technology use in schools, offering a nuanced understanding essential for effective integration strategies and policy development.

A framework for teacher knowledge ICT

Koehler (2006) [4] begin by addressing the challenges faced by educators in integrating technology effectively into their teaching practices. They argue that merely possessing knowledge in technology (TCK - Technological Content Knowledge) or pedagogy (PCK - Pedagogical Content Knowledge) is insufficient for successful technology integration. Instead, they propose the TPACK framework as a comprehensive model that acknowledges the dynamic and interconnected nature of these three domains: technology, pedagogy, and content knowledge.

Figure: 01

A framework for teacher knowledge ICT

Source: https://www.frontiersin.org/files
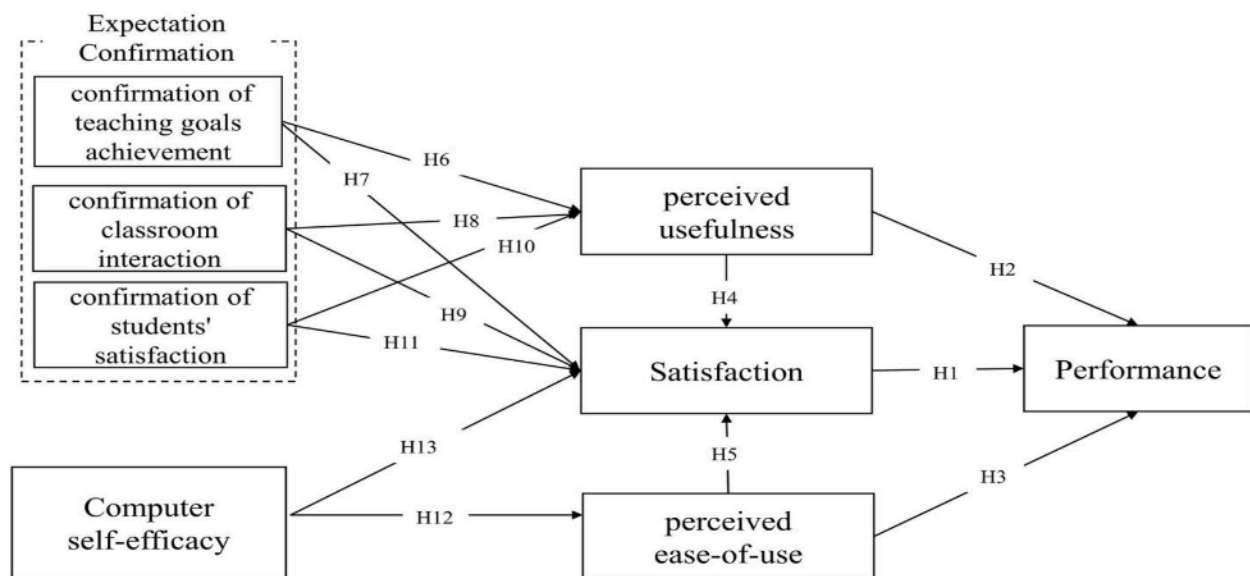
Previous related literature

Anderson's (2018) [1] elucidated the various ways in which ICT influences both teaching and learning processes within the higher education landscape. The primary objective of the study is to understand the relationship between the utilization of ICT and faculty members' job satisfaction. The aim to explore whether ICT usage enhances or diminishes faculty members' satisfaction with their roles in higher education institutions. The researchers employ a quantitative approach to gather data for their study. They likely utilize surveys or questionnaires administered to faculty members within various academic

743

institutions. These surveys may include items related to ICT usage patterns, perceived benefits or challenges of ICT integration, and measures of job satisfaction. The findings suggest a significant relationship between the use of ICT and faculty members' job satisfaction. They likely discover that the integration of ICT tools and resources positively influences faculty members' satisfaction levels by enhancing their efficiency, productivity, and effectiveness in teaching, research, and administrative tasks. Additionally, the study may uncover correlations between specific ICT applications (e.g., Learning Management Systems, online collaboration tools) and varying levels of job satisfaction among faculty members. By examining factors such as access to technology, pedagogical approaches, and learner engagement, Anderson provides valuable insights into the complex dynamics at play in this domain. Furthermore, the study sheds light on the potential benefits and challenges associated with the integration of ICT, offering valuable guidance for educators and policymakers striving to leverage technology effectively in higher education contexts. The transformative impact of ICT on teaching and learning practices in higher education, highlighting its potential to enhance educational outcomes while also emphasizing the importance of thoughtful implementation strategies.

Reaching the Unreached: Using ICT

The UNESCO report [8] "Reaching the Unreached: Using ICT to Provide Education to Hard-to-Reach Populations," published in 2017, addresses the utilization of Information and Communication Technology (ICT) to extend educational opportunities to marginalized and underserved populations. Here's a summary of its key points: The primary objective of the report is to highlight the potential of ICT in overcoming barriers to education faced by hard-to-reach populations, including those in remote areas, conflict zones, and marginalized communities. The report likely covers various forms of ICT, including mobile devices, internet-based platforms, educational software, and digital content. It may also discuss innovative approaches such as mobile learning, online education, and blended learning models that leverage ICT to deliver educational services. The report likely addresses common challenges hindering access to education for hard-to-reach populations, such as geographical isolation, lack of infrastructure, poverty, gender disparities, and cultural barriers. It may also explore how ICT can help mitigate these challenges by providing flexible, scalable, and cost-effective solutions. UNESCO likely highlights the numerous benefits of integrating ICT into educational initiatives targeting hard-to-reach populations. These benefits may include increased access to educational resources, enhanced learning experiences, improved teacher training, better monitoring and evaluation mechanisms, and opportunities for lifelong learning. The report may feature case studies and examples of successful ICT initiatives from around the world, demonstrating how technology has been effectively utilized to provide education to marginalized communities. These case studies may showcase innovative projects, partnerships, and policies that have made a significant impact on improving educational access and quality [8].

Figure: 02

Reaching the Unreached: Using ICT

https://media.springernature.com
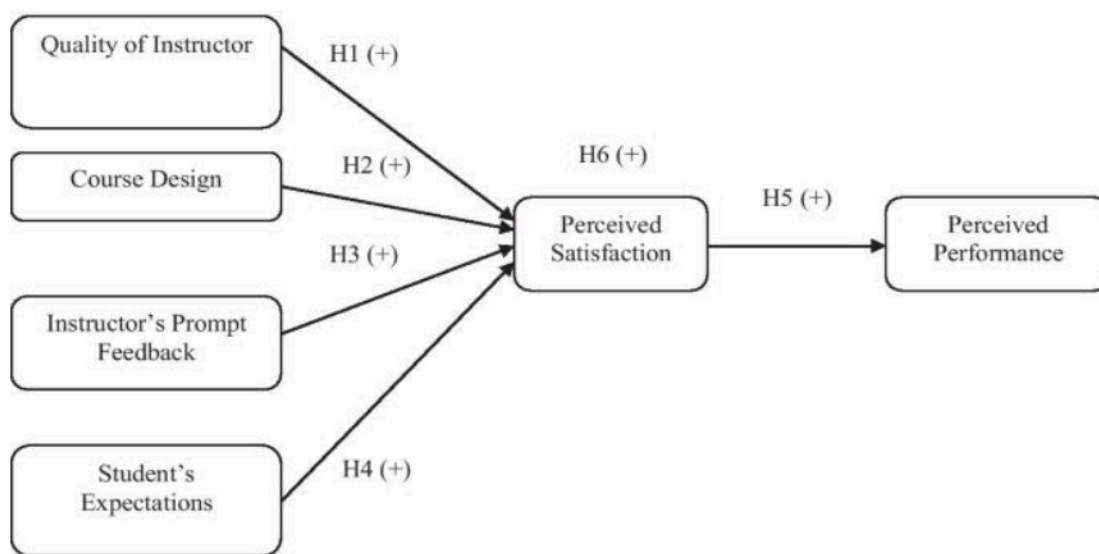
Statement of the Problem:

In the realm of higher education, the effective integration of (ICT) into teaching practices is becoming increasingly crucial. However, despite the growing emphasis on ICT in education, there remains a gap in understanding its impact on the job performance of college teachers. Therefore, the primary problem to be addressed in this study is:

1. What are the challenges and barriers faced by college teachers in integrating ICT into their teaching practices?
2. How does the level of ICT competency and training among college teachers correlate with their job performance?
3. How does the use of ICT affect college teachers' workload, productivity, and overall job satisfaction?
4. To what extent does the utilization of Information and Communication Technology (ICT) influence the job performance of college teachers in higher education?"

The research aims to inform educational policymakers, administrators, and practitioners about the factors influencing effective ICT integration, thereby facilitating the creation of supportive environments conducive to enhancing teaching quality and student learning outcomes.

Research Methodology

Evaluating job performance in ICT integration facilitates the alignment of institutional goals with emerging trends and best practices in educational technology. As new ICT tools and methodologies continue to emerge, it is essential for college teachers to remain agile and adaptable in their approach to teaching. Institutions may make sure that faculty members have the knowledge and tools needed to keep up with technology changes and successfully incorporate them into their teaching practices by routinely assessing their performance in this area. A straightforward random selection technique is used to choose 150 sample respondents, who are college teachers.. The researchers gathered data from a group of faculty members using a daily diary approach, which enabled them to gain a detailed picture of both the immediate and long-term impacts of ICT use on their well-being. Park et al. (2023) [14]. The study recognizes the growing dependence on ICT tools in educational environments and the possible consequences of this dependence on the psychological and emotional well-being of faculty members.

Findings, Presentation and Results

College teachers encounter several challenges and barriers when integrating (ICT) into their teaching practices. These challenges can impede the effective utilization of ICT tools and hinder the enhancement of teaching effectiveness and student engagement.

<div align="center">

Table: 01

Challenges associated with ICT integration- Friedman test

</div>

Challenges	Mean	Std. Deviation	Mean Rank	Rank
Technological Competency	2.88	0.992	3.58	II
Resource Constraints	2.31	1.214	2.71	III
Time Constraints	2.03	1.157	2.23	V
Resistance to Change	2.14	1.009	2.45	IV
Pedagogical Alignment	2.92	1.131	3.66	I

No. of Respondents	150
Chi-Square value	12.100
difference	04
Sig.	0.006

The Chi-Square value (12.100) calculated in the Friedman test for 4 degrees of freedom is statistically significant at a 1% significance level. The study concluded that the respondents had a relatively high level of awareness regarding the challenges connected with ICT integration. The significance level is 0.006, which is less than 0.01. Therefore, the hypothesis is rejected. **Pedagogical Alignment** (3.66): Ensuring the alignment of ICT integration with pedagogical goals and instructional strategies is crucial but challenging. College teachers must navigate the complexities of integrating ICT in a manner that enhances rather than detracts from teaching effectiveness and student engagement. Finding the right balance between technology-driven instruction and traditional pedagogical approaches requires careful planning, experimentation, and ongoing reflection. **Technological Competency** (3.58): Limited training opportunities and insufficient support for professional development can exacerbate this challenge, leaving teachers feeling ill-equipped to navigate and leverage the full potential of ICT tools. **Resource Constraints** (2.71) Inadequate access to technological resources, including hardware, software, and internet connectivity, poses a significant barrier to ICT integration. Budgetary constraints within educational institutions may restrict the availability of updated technology infrastructure, hindering teachers' ability to incorporate ICT into their teaching practices. **Resistance to Change**: (2.45) Resistance to change among faculty members and institutional stakeholders can impede efforts to integrate ICT into teaching practices. Traditional teaching methods and established classroom routines may be deeply ingrained, leading to reluctance or skepticism towards adopting innovative ICT-based approaches. Resistance may also stem from concerns about the perceived effectiveness and relevance of ICT tools in enhancing student learning outcomes. **Time Constraints** (2.23). The learning curve associated with mastering new technologies further compounds this issue, as teachers may perceive ICT integration as an additional burden rather than a beneficial pedagogical approach. Addressing these challenges requires a multifaceted approach that encompasses targeted professional development initiatives, adequate technological infrastructure, supportive institutional policies, and a culture of innovation and collaboration.

Table 2: Z test

Nature of Respondents		No of respondents	Mean	Std. Deviation	Z	Sig
Gender	Male	82	15.2540	3.12754	-1.624	0.109
	Female	68	16.1471	4.43571		
Marital status	Single	94	16.1000	3.15416	-0.846	0.337
	Married	56	15.2316	4.25768		
Total		150	19.4480	4.09737		

The table 2 revealed that compared to respondents who are single (15.2540), female respondents had a higher mean ICT score (16.471). Statistically, there is no difference (p-0.337). The formulated theory is sound. The analysis concludes that there is no difference in the respondents' of Job Performance of College Teachers in Higher Education using ICT between married and single respondents. The single respondents' (15.2316) job performance is worse than that of the unmarried respondents (16.1000). Nevertheless, the Z score (p-0.109) is not noteworthy. Therefore, it is determined that the hypothesis—that there is not a significant distinction in the standard deviation between the male and female customers.

Discussion

Park and Kim (2023) [14] examined the complex correlation between the utilization of (ICT) and the overall well-being of faculty members using a detailed daily diary methodology. The study's findings demonstrate the various and complex effects of ICT use on the well-being of faculty members. Initially, the researchers noted that although the use of ICT provides

various advantages in terms of enhancing communication, teamwork, and task effectiveness, it also brings about pressures and difficulties that might negatively impact the overall well-being of faculty members. The continuous access provided by ICT technologies can cause the lines between work and personal life to become less clear, resulting in faculty members experiencing burnout and tiredness. The study examined differences in the impact of ICT use on well-being among various circumstances and individuals. It is crucial to take into account these contextual elements while studying the connection between ICT use and well-being among faculty members.

Policy Recommendations:

To foster the effective use of ICT in reaching hard-to-reach populations, the report likely offers policy recommendations for governments, policymakers, educators, and other stakeholders. These recommendations may focus on areas such as infrastructure development, digital literacy programs, teacher training, curriculum development, and funding mechanisms to support ICT-enabled educational initiatives. Through the utilization of a daily diary technique, the researchers offer a detailed comprehension of the immediate and cumulative impacts of ICT use on the psychological and emotional well-being of faculty members. The results emphasize the need of institutions adopting policies and practices that encourage healthy use of (ICT) and provide assistance to faculty members in maintaining their well-being in the face of technological requirements.

Implications

The study's implications underscore the importance of strategic ICT integration initiatives within higher education institutions. Shraim and Khlaif's (2016) [6] findings may inform institutional policies and practices aimed at promoting the effective utilization of ICT to support faculty members in their roles. Moreover, the study highlights the need for ongoing professional development opportunities focused on enhancing faculty members' ICT skills and competencies to maximize job satisfaction and overall institutional effectiveness. The study provides insight into how self-regulation and mindfulness might help reduce the adverse impact of ICT use on the well-being of faculty members. Faculty members who demonstrate greater levels of self-control and mindfulness are more capable of handling the difficulties connected with ICT use, resulting in enhanced overall well-being. These findings emphasize the significance of encouraging faculty members to develop self-awareness and self-care methods in order to strengthen their ability to cope with technology pressures. The study conducted by Parkand Kim (2023) [14] provides useful insights into the intricate relationship between the usage of ICT and the well-being of faculty members in higher education environments.

Conclusion

The study contributes valuable insights into the relationship between ICT usage and faculty members' job satisfaction in higher education contexts. By identifying the potential benefits of ICT integration and its impact on faculty members' professional experiences, the study informs strategies for fostering a supportive and conducive work environment within academic institutions. Shraim & Khlaif (2016) [6]. The UNESCO report underscores the transformative potential of ICT in expanding educational opportunities for hard-to-reach populations. By highlighting best practices, addressing challenges, and providing policy recommendations, the report contributes to the global effort to ensure inclusive and equitable access to quality education for all. The job performance of college teachers in ICT integration directly impacts institutional competitiveness and relevance in the digital age. Institutions that excel in integrating technology into teaching and learning environments are better positioned to attract prospective students, meet the demands of employers, and remain competitive in an increasingly globalized educational landscape. Therefore, evaluating teacher performance in this context serves as a critical component of strategic planning and quality assurance initiatives within higher education institutions. The job performance of college teachers in ICT integration has significant implications for student engagement, retention, and academic achievement. Research has shown that well-designed technology-enhanced learning experiences can increase student motivation, foster collaboration, and improve critical thinking skills. Conversely, ineffective use of ICT or a lack of technological integration may lead to disengagement, hindered learning outcomes, and diminished student satisfaction. By assessing teacher performance in ICT integration, institutions can identify opportunities to optimize the learning environment and support student success.

Reference

1. Anderson, J. A. (2018). The Impact of Information and Communication Technology (ICT) on Teaching and Learning in Higher Education. Journal of Education and Learning, 7(1), 78-89.
2. Clark, R. E. (2015). Four Ways Serious Games Link to Learning. In M. Ma & A. Oikonomou (Eds.), Serious Games and Edutainment Applications (pp. 9-19). Springer.
3. Liu, S. H., Liao, H. L., & Pratt, J. A. (2009). Impact of media richness and flow on e-learning technology acceptance. Computers & Education, 52(3), 599-607.
4. Mishra, P., & Koehler, M. J. (2006). Technological Pedagogical Content Knowledge: A framework for teacher knowledge. Teachers College Record, 108(6), 1017-1054.
5. Selwyn, N. (2011). Schools and schooling in the digital age: A critical analysis. Routledge.
6. Shraim, K., & Khlaif, Z. N. (2016). The impact of information and communication technology (ICT) on faculty members' job satisfaction. Computers in Human Behavior, 55, 1001-1014.
7. Tondeur, J., Van Braak, J., Sang, G., Voogt, J., Fisser, P., & Ottenbreit-Leftwich, A. (2012). Preparing pre-service teachers to integrate technology in education: A synthesis of qualitative evidence. Computers & Education, 59(1), 134-144.
8. UNESCO. (2013). ICT in Education in Jordan: A strategic plan for education reform. UNESCO.
9. UNESCO. (2017). Reaching the unreached: Using ICT to provide education to hard-to-reach populations. UNESCO.
10. Zhao, Y., & Frank, K. A. (2003). Factors affecting technology uses in schools: An ecological perspective. American Educational Research Journal, 40(4), 807-840.
11. Bożena Pera Agnieszka Hajdukiewicz (2022) Digital Competencies among Higher Education Professors and High-School Teachers: Does Teaching Experience matter? Vol. 13 No. 2 (2022): Special issue in Digitalization in Teaching Economic Disciplines: Past, Current and Future Perspectives
12. EC Onyeka, MC Ezeanya, GN okoye (2023) Covid-19 pandemic outbreak: impact on lecturers 'job performance at university of port Harcourt, Journal of Educational.
13. Moreira, M., Arcas, B. R., Sánchez, T. G., García, R. B., Melero, M. R., Cunha, N. B., Viana, M. A., & Almeida, M. (2023). Teachers' pedagogical competences in higher education: A systematic literature review. Journal of University Teaching & Learning Practice, 20(1), 90-123.

14. Park, N., Kang, J., & Kim, J. (2023). Understanding the Impacts of Information and Communication Technology (ICT) Use on Faculty Well-Being: A Daily Diary Study. Computers in Human Behavior, 126, 107044.

15. Lim, V. K. G., & Teo, T. S. H. (2023). Prevalence, Reasons, and Outcomes of Techno stress among Teachers in Singapore. Computers & Education, 177, 104396.

16. Al-Shobaki, S., Khatib, T., Abu-Zaid, A., & Al-Suradi, M. M. (2023). The Impact of Techno stress on Job Performance among Faculty Members in Palestinian Universities. International Journal of Educational Technology in Higher Education, 20(1), 1-18.

17. Tarafdar, M., Pullins, E. B., & Ragu-Nathan, T. S. (2023). Techno stress and Student Well-Being: The Role of Perceived Digital Support. Journal of Management Information Systems, 40(1), 191-220.