

Information and Communication Technology (ICT) and its Impact on Employees' Performance at Private Management Colleges in the Kathmandu Valley

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Abstract

This paper aimed to analyze Information and Communication Technology (ICT) and its Impact on employees' performance at Private Management Colleges in the Kathmandu Valley. This research has reviewed some related literature having similar objectives alongside theoretical framework on the subject matter. This paper adopts the descriptive research design based on secondary data in achieving the stated objective. It has collected the previous literature and analyzed based on the thematic area of the study. Based on the findings, the study recommended that organizations should improve more on its information technology to enhance its productivity. The research results showed that ICT and its availability has a significant positive impact on employee performance.

Keywords: Colleges, Employees, Education, ICT, Nepal, Performance

1. Introduction

1.1 Background of the Study

In today's world of technology, integration of computer and ICT into the teaching-learning activities across all levels of education is necessary, as education is generally considered a means for attaining individual, societal, national and global development. However, failure to provide the required computer/ICT facilities, human resource to operate and maintain them and incapability to use them in learning and teaching, the essential quality education will not be provided thereby overpowering the basic purpose of education. It is therefore, necessary to investigate the influence of computer literacy on teachers' job performance (Tumburku, Kamba, & Muhammad, 2019).

The Fruits of Technology whether constructive/potentially destructive have significantly shaped our country. A high rate of personal consumption respects for higher education the desire for excellence in all fields and government support of basic research has contributed to the rapidly changing environment (Rajakumaran, 2014).

Education after the recent global pandemic has given rise to the application of ICT in education sector tremendously. This has significantly changed the teaching pedagogy among the educators to meet the changing needs. ICT abilities might be thought of as "gateway skills," without which a person's chances of landing a job would be greatly diminished. Over the past ten years, there have been significant changes in the ways that services supporting

the investigation of educational and job options are accessed and provided. Within the existing economic climate of public spending cuts, ICT and its application is progressively seen as a instrument for which a series of enhanced services relevant to employability can be delivered. Moreover, ICT skills can also serve to enhance a person's employability profile, particularly when combined with other skills and attributes, or as a catalyst for further skills development (Hoyos, et al., 2013). ICT has been defined as a broad-based technology (including its methods, management and application) that supports the creation, storage, manipulation and communication of information (Nwabueze & Ozioko, 2011).

The assumptions that today's youth are surrounded and immersed in technology, including cell-phones, computers, tablets, and gaming consoles, among other devices, has led to a generalization about how learning with the support of information and communication technologies (ICT) has been constantly growing (Prensky, 2010). Several national efforts suggest the importance of an ICT-literate workforce, and the need for business school curricula to incorporate these skills (Ali & Katz, 2010).

Twenty-first century is the age of information and communication technology (ICT). At present, there is likelihood of using ICT both as content and as a technique. One of the purposes to introduce ICT in education is support effective learning. The basics of the economy and society are changing, and this calls for a change in the general population's skills, capacities, and attitudes. This calls for a change in the current educational system's delivery and pedagogical methods. Better teaching may result from more readily available best practices and best course materials in education that can be shared via ICT. In addition, ICT enables academic institutions to connect with underserved populations and brand-new global educational marketplaces. In the context of Nepal, teachers and students are very much curious and optimist towards the use of ICT in online classes but the limited resources is the main hurdle for the effective implementations. On the other hand, in our classroom, different students have different interest due to individual difference and the teacher must choose the best strategies to manage such problem. Thus, ICT enabled education will ultimately lead to the democratization of education (Hattangdi & Ghosh, 2008).

Discussions of Information Technology in Education typically emphasize the Technology rather than the Information. Technology serves as the interface through which we engage with information, but rather than being knowledgeable about specific gear or software, a person's capacity to handle information—to solve issues and think critically about it—tells us more about their future success. These abilities, referred to as Information and Communications Technology (ICT) Literacy, represent a form of literacy for the twenty-first century in which gathering information online and communicating it effectively using digital platforms are just as crucial as reading and writing were in earlier centuries (Katz & Macklin, 2007).

ICT literacy is the ability to access, manage, integrate, evaluate, and produce information utilizing digital technology, communications tools, and/or networks in order to work in a knowledge-based society. This definition is significant since it identifies five essential elements of ICT literacy. The five components denote a various skills and knowledge presented in a sequence that suggests increasing cognitive complexity. After consultations about the kinds of tasks represented by each component, the panel agreed on the following definitions:

- Access –To know about and knowing how to accumulate and/or retrieve information.
- Manage - To apply a prevailing organizational or classification scheme.
- Integrate –To interpret and represent information. It involves summarizing, comparing and contrasting.

- Evaluate –To make judgments about the quality, relevance, usefulness, or efficiency of information.
- Create –To create information by adapting, applying, designing, inventing, or authoring information. (Educational Testing Service, 2002).

1.2 Literature Review

1.2.1 ICT and Employee Performance

Performance can be defined as employees' functional behavior inside the organizations in order to achieve their objectives and consequently it shows the importance of recognizing the duties and responsibilities of the job "Job Description", which let the workers know their duties, responsibilities and their own rights. As a result, the worker could perform his right and specific mission pertaining to his job properly (Campbell & Pritchard, 1976).

Computer literacy is very much necessary for teachers in this ICT based age. Teachers' confidence as instructors is increased by their computer proficiency. Once teachers have the assurance of the ICT skills they possess, their confidence in using electronic systems is boosted, and hence, professional development is guaranteed (Bhebhe & Maphosa, 2016).

The developments of a global economy and technological advancements have brought individuals from all over the world closer together than before. Given this fact, businesses, educational systems and other entities are investigating ways to better recruit their workforce by attracting and retaining the best and most qualified workers (Rao & Bagali, 2014). In current years, application of ICT in organizations has become a major empowering factor. In addition, the development rate in organizations concerning the use of ICT can be seen as one of the main indicators of development (Rezaei, Rezaei, Zare, Akbarzadeh, & Zare, 2014).

Technology and education have been more fundamental elements of the 21st century level of living. Technology advancements have an effect on pedagogy and education. Over the past three decades, numerous industrialized and developing nations have promoted the use of new technology as teaching aids in a variety of areas (Cubukcuoglu, 2013).

There is a challenging task of adapting workplace to rapid Technological changes which influences the nature of work and generate obsolescence. Advanced technology has inclined to decrease the number of jobs that need miniature skill and to surge the number of jobs that need considerable skill, a shift we refer to as moving from manual labor to cognitive work. There is new-new working technology. Organizations need to modify their technologies in this situation. Latest technology generates unemployment and in other hand, scarcity of skilled manpower exists. Like this, technological change brings difficulties and challenges in organization (Srivastava & Agarwal, 2012).

1.2.2 Private Colleges of Nepal

Nepal is a cosmopolitan nation with many different ethnic, religious, and linguistic groupings. Nepal has recently been federated into 7 provinces, 77 districts, and 753 local level units on the basis of demography and geography (Bhattarai & Conway, 2021). Private Colleges of Nepal is filled with diverse educators not only from Nepal but also from neighboring countries as well. Managing such diverse workforce is a major concern for the management.

Higher education is one of the most important factors for the overall development of the nation. Higher education develops human resource in a country that will take care of other remaining resources in the country. It is essential to the country's development. Recent years have seen the realization that if a country has skilled and educated labour, it can grow and succeed even in the absence of other resources. The following ideas are suggested for raising the standard of higher education:

1. Faculty development program should be implemented to improve the quality of the faculties

2. Curriculum and course contents should be timely and properly updated with current scenarios and it should contain relevant issues
3. Teaching methodology and pedagogy should be changed timely. Focus should be given to implement IT (Upadhyay, 2018).

Although Nepal's history of higher education development is scant, it has been expanding since democracy was only restored in the 1950s. With assistance from India and the US, Tribhuvan Institution was started in 1959 and remained the only university (until 1992). In Nepal, there were 51 community colleges with a combined enrollment of 10,000 students and 5 colleges with a total of 5,000 students by 1965. Over the past few decades, private higher education in Nepal has expanded and overtaken state higher education in size (Nikku, 2013).

1.3 Research Objective

The general objective of this study is to understand ICT and its impact on Employee's Performance in Private Management Colleges of Kathmandu Valley. Specifically, this study will examine the role of Information and Communication Technology (ICT) literacy in relation to employee performance.

3. Materials and Method Used

The study is completely based on secondary data. A review of literature is done from selected data available from different agencies and sources. Data from multiple sources have been brought together and a conclusion is devised based on that. The source of information is secondary source and while collecting the information, the study has used descriptive study on the basis of qualitative data.

4. Findings and Discussion

The study conducted by Avila and Cabrera Jr. (2021) concluded that the ICT competence of the employees is affected by the availability of the ICT resources in the institution and their exposure to the ICT resources. Additionally, it is advised that the higher-ups at the university and the Commission on Higher Education give top priority to purchasing the tools, facilities, and resources necessary for higher education institutions to integrate ICT, and that regular training sessions be held to empower the personnel.

The study concluded that the investment in information technology is an important tool in enhancing performance, since the interest and investment in technology elements helps to connect the several functions of administration with each other and to eradicate replication and lessen mistakes and effort, which adds to improved productivity and lead to administrative decisions better, and more proficient processes which improves the performance of employees (Al-Hawary & AlDafiri, 2017).

The study conducted by Piabuo et al. (2017) highlights the use of ICT as an efficient tool in Human resource management of enterprises. Since ICT use guarantees effective human resource management, we recommend enhancing regular information and communication technology training and development to enable proper interactions between human resource management and the various departments, which might increase organizational efficiency. It has been proven that utilizing ICT tools improves HR management effectiveness.

The study conducted by Sharma and Kim (2016) concluded that Nepal is lagging more behind than other developed countries in terms of ICT infrastructure. Infrastructure is important in development of overall ICT sector and Nepal has poor ICT infrastructure level. Although Nepal has cheap prices for internet and telecommunication accessibility mainly for internet and other ICT resources is very poor. The government itself is also lagging behind in terms of ICT development. The country has been revising policies for better ICT

implementation but the government is lagging behind in Information Communication Technology Development in Nepal 133 implementing ICT in its service delivery.

Through the IT, there are sudden changes occurring in the behavior and performance of the employees. Therefore use of personnel computer and communication Technology help to improve the performance and keep the employees who work with satisfaction. Satisfied employee can commit the maximum level of work (Rajakumaran, 2014).

The study indicated that the use of IT by employees will improve the productivity indices among them. Employee commitment to their roles increases as a result, improving the productivity of human resources. In addition, IT as a set of generated ideas provided through software mechanisms to employees and organizations will play a significant role in human resources development (Rezaei, Rezaei, Zare, Akbarzadeh, & Zare, 2014).

The study conducted by Jiang (2014) showed that both job satisfaction and work effectiveness were positively related to ICT utilization and perceived ease of ICT usage. The correlations between job satisfaction and ICT use and easiness, as well as the relationships between work effectiveness and these two characteristics, were strongly mediated by employees' knowledge sharing orientation.

5. Conclusion and Recommendation

The research results showed that ICT has a significant positive impact on employee performance. Most of the researchers suggested the importance of ICT and its availability as the key indicator of employee's efficiency and enhanced organizational performance. Based on the findings and recommendations from national and international studies, the study would like to further conclude that Nepal is still struggling in the field of ICT in almost all the sectors and that is one of the main reasons acting as a blockade for technological and overall development.

Although many research studies have been conducted on ICT and its impact on employee or organization performance in many countries, there is still a need of thorough research in Nepal on this topic.

References

- Al-Hawary, S. I., & AlDafiri, M. F. (2017). Effect of the components of information technology adoption on employees performance of interior ministry of Kuwait State. *International Journal of Academic Research in Economics and Management Sciences* 2017, Vol. 6, No. 2, 149.
- Ali, R., & Katz, I. R. (2010). *Information and communication technology literacy: what do businesses expect and what do business schools teach?* Educational Testing Service (ETS). Retrieved from <https://files.eric.ed.gov/fulltext/ED523954.pdf>
- Avila, E. C., & Jr, H. I. (2021). ICT competence, organizational culture, motivation, and task performance among the employees of one polytechnic university branch. *Journal of Physics: Conference Series*, 1933(012121), 1. doi:<http://dx.doi.org/10.1088/1742-6596/1933/1/012121>
- Baral, R. K. (2020). The Higher Education Policy of Nepal: An Analysis. *Research Gate*.
- Bhattarai, K. P. (2014). HIGHER EDUCATION IN NEPAL; TRUTH AND CHALLENGES. *IAESTE NEPAL*.
- Bhattarai, K., & Conway, D. (2021). *Demography, caste/ethnicity, federalism, and socioeconomic conditions in relation to contemporary environment*. Nepal: Springer. doi: 10.1007/978-3-030-50168-6_2
- Bhebhe, S., & Maphosa, C. (2016). Examining teachers' computer literacy and utilization of ICTs in teaching and learning at primary school level. *Journal of Communication*, 7(2), 231-240.

- Campbell, & Pritchard, R. (1976). Motivation theory in industrial and. *M. D. Dunnette*, 63-130.
- Cubukcuoglu, B. (2013). Factors enabling the use of technology in subject teaching. *International Journal of Education and Development using Information and Communication Technology*, 9(3), 50-60. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1071358.pdf>
- Educational Testing Service. (2002). *Digital transformation: a framework for ICT literacy*. Educational Testing Service (ETS).
- Hattangdi, A., & Ghosh, A. (2008). Enhancing the quality and accessibility of higher education through the use of information and communication technologies.
- Hoyos, M. d., Green, A. E., Barnes, S.-A., Behle, H., Baldauf, B., & Owen, D. (2013). *Literature review on employability, inclusion and ICT, report 2:ICT and employability*. Luxembourg : Publications Office of the European Union. doi:<http://dx.doi.org/10.2791/71448>
- Jiang, Z. (. (2014). Impact of information and communication technology (ICT) on job outcomes: Does knowledge sharing matter? *Academy of Taiwan Business Management Review*, 10, 53-62.
- Katz, I. R., & Macklin, A. S. (2007). Information and communication technology (ICT) literacy: integration and assessment in higher education. *Research Gate*, 50-55. Retrieved from https://www.researchgate.net/publication/255591791_Information_and_Communication_Technology_ICT_Literacy_Integration_and_Assessment_in_Higher_Education?enrichId=rgreq-c5a5728d52b63a24c46c9b996c1445f5-XXX&enrichSource=Y292ZXJQYWdIOzI1NTU5MTc5MTtBUzo5ODY3MT
- Nikku, B. R. (2013). Nepal's higher education: public vs. private? *International Higher Education*, 16-18. doi:10.6017/ihe.2013.70.8709
- Nwabueze, A. U., & Ozioko, R. (2011). Information and communication technology for sustainable development in Nigeria”. *Library philosophy and practice (e-journal)*, 1-6. Retrieved from <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1632&context=libphilprac>
- Oyedipe, W. J., & Popoola, S. O. (2019). Influence of Age, Job Status, ICT Literacy Skills and ICT Use on Task Performance of Library Personnel in Public Universities. *International Journal of Knowledge Content Development & Technology Vol.9, No.3,*, 43-61.
- Piabuo, S. M., Piendiah, N. E., Njamnshi2, N. L., & Tieguhong, P. J. (2017). The impact of ICT on the efficiency of HRM in Cameroonian enterprises: case of the mobile telephone industry. *Journal of Global Entrepreneurship Research*, 7, 1-18. doi:10.1186/s40497-017-0063-5
- Prensky, M. R. (2010). *Teaching Digital Natives: Partnering for Real Learning*. USA: Corwin Press.
- Rajakumaran, T. (2014). impact of information technology on employees' performance in education department, jaffna zone. *Indian Journal of Research in Management, Business and Social Sciences (IJRMBSS)*, 2(1), 17-19.
- Rao, S. R., & Bagali, M. M. (2014). Workforce diversity and management: An empirical study on relationship between diversity management practices, obstacles and acceptance of gender diversity among employees in IT industry; Bangalore. *IOSR Journal of Business and Management*, 16, 2. Ver. I (Feb. 2014),(2. Ver. I (Feb. 2014),), 12.



- Rezaei, M., Rezaei, M., Zare, M., Akbarzadeh, H., & Zare, F. (2014). The effects of information technology (IT) on employee productivity in shahr bank (case study of Shiraz, Iran). *Applied mathematics in Engineering, Management and Technology 2014*, 1208-1214. Retrieved July 30, 2022, from <http://www.amiemt-journal.com/>
- Sharma, A., & Kim, Y. S. (2016). Information communication technology development in Nepal. *Institute for Poverty Alleviation and International Development*, 25, 87-134. doi: 10.18350/ipaid.2016.25.1.101
- Srivastava, E., & Agarwal, N. (2012). The emerging challenges in HRM. *INTERNATIONAL JOURNAL OF SCIENTIFIC & TECHNOLOGY RESEARCH VOLUME 1,, 1(6)*, 46-48. Retrieved from <http://www.ijstr.org/>
- Tumburku, W. G., Kamba, J. H., & Muhammad, S. (2019). Computer literacy and teachers' job performance in secondary schools in dankoWasagu local government area, Kebbi state, Nigeria. *2nd International Conference on Education and Development (ITED)*, 3(7), 258-263. doi:DOI:10.21276/jaep.2019.3.7.2
- Upadhyay, J. P. (2018). Higher education in Nepal. *Pravaha Journal*, 96-108.