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## **Impact of Information and Communication Technology (ICT) on Employees Productivity- A Literature review**

**Dr. Srikanta Charana Das, Associate Professor**  
**School of Management, KIIT University, Bhubaneswar, Odisha**

**&**  
**Ambika Prasad Das, Research Scholar**  
**School of Management, KIIT University, Bhubaneswar, Odisha**

*Abstract*

The present paper is an attempt to understand the importance and impact of ICT on employees' productivity. For this purpose secondary source is taken as base. It is found that ICT helps to make existing process simpler, role of ICT is more positive than negative, Increases the employee relationship, strong impact on employee performance, positive effects on the profitability, contributes quality of work performance etc in addition to others.

**Key words-** ICT, Employees productivity, performance.

### **Introduction**

Information technology is one of the leading sectors which cater to basic needs of each and every organization exists in this world. At the beginning of the marketing era when consumer choice had no importance, may be choice and implementation of technology was limited. The monopoly nature of the market forced the consumers to purchase the products as available to them. But the scenario was not lasted for long. After the introduction of dot.com segment, both the consumers as well as the producers started relying more on information technology. In between consumers are started playing a very important role to decide on the market force. But role of technology was restricted to production and operations only. But along with it performance of the employees are never judged. But employees being an integral part of the organization, their productivity should be judged using technology enabled services. This study, thus would like to consider the issues of information technology on employee productivity so that a new area can be open up.

**Zuboff (1988)** The author focused on the concept of information technology and its impact on the working conditions of the workers. The change was witnessed in both manufacturing as well as service sectors. According to the author the role of technology should not be limited to change of routine job into automotive mode rather it should focus on the issues where it may create the capacity to educate or provide information to each and every stakeholders in a meaningful manner. The openness on the information system should able to address the issues faced by the workers in various jobs or departments. The success of information technology can only be seen **if it is able to make the existing process more simple and acceptable.**

**Bresnahan et al (1998)** The authors used five firm data to analyse the role of information technology on skill development and improvement of the employees. Information technology is playing a significant role in the day to day activities of the workers and **it helps to ease the process of working different types of jobs.** Over the years the organizations are seeing significant changes in the IT applications and its way of implementing things are slowly moving towards a new direction. But only IT infrastructure will not be sufficient to create a good working environment. It needs adequate training and employee engagement.

**Wet et al (2016)**, the paper has explored the impact of information and communication technology on employees' work and personal lives. The objectives of this research were to investigate the influence of ICT on employees' personal lives, and to explore the role of ICT on employees' work life and working relationships. From the results the five themes extracted from the interviews provided valuable insights into the usage of ICT and the role these devices play in employees' environment. The findings did not only highlight employees' negative and positive experiences of ICT usage but also pointed out the role ICT plays in **employees' relationships and the increased expectation brought about by adopting these devices.** The members of this research experienced showed the **role of ICT to be more positive than negative.** One unique finding of the present research is the negative experience of ICT co-operating the chain of command in organizations. The research painted that employees should make a conscious decision in managing their ICT to decrease the negative influence thereof on their fields.

**Abbas et al (2014)**, in this paper authors has shown the impact of technology on performance of employees of Allied Bank Ltd, Pakistan. The aim of this study was to examine the effects of information technology on performance of Allied Bank employees. The data was gathered through unstructured interviews and responses were analyzed through IBM SPSS Text Analytics. The results of this research indicated that **new technology has strong impact on the performance of employees** of Allied Bank. According to the result it has indicated that the

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biggest problem which the users are facing is slow network speed and sometimes connectivity issues; so it is strongly suggested that any organization who wants to implement new technology, it should fulfill the prerequisites of its. For consistent quality service, training should be given to the employees after regular intervals.

**Adewoye et al (2012)** in this article authors have discussed about the role of information and communication technology investment on the profitability of small medium scale industries of Sachet Water Companies in Oyo State, Nigeria. The study was carried out on sixty (60) randomly selected sachet water companies which registered with National Agency for Food and Drug Administration and Control (NAFDAC) and Association of Table Water Association Producers (ATWAP). The main objective of the study was to estimate the degree of usage and the constraints influencing against the application of ICT and to assess the effect of ICT investments on profitability of the selected sachet water companies. The study has concluded that **ICT investment had positive effects on the profitability** of selected sachet water companies in Nigeria. The study also has described a significant benefit of ICT investment on the company profitability. Based on the findings it was recommended that sachet Water Company should **adopt ICT devices to enhance their performance**. The expertise should be instructed to train the existing worker on the essentials of the job for maximum productivity and also to face the challenges of new technology.

**James (2013)**, in this article author has depicted the effects of information and communication technology on secretaries' performance in the contemporary organizations in Bayelsa State, Nigeria. To achieve the objective of the paper, primary and secondary data were used. The results suggested that the usage of computer, telecommunication techniques and video techniques does improve the performance of public sector secretaries' in Bayelsa State of Nigeria. It also concluded that the information and technology revolution with the beginning of **modern IT facilities has contributed to the quality of work performed** by secretaries in this state of Nigeria. The study showed that ICT use is correlated with workers skills suggesting that firms that use high levels of ICT also employ more knowledge workers. The paper has recommended that constant training and retraining of employees using relevant ICT facilities should be used to improve the quality of secretaries.

**Vogiatzi (2015)**, in this paper author has discussed the use of ICT technologies which enhances employees' performance in the Greek hotel industry. The objective of the study was to find out how the diffused perception over information technologies may guide the opinions that steer the creation of an opinion with regard to the adoption of the technologies and to evaluate the impact

of personal or self-satisfaction in their behavior. The goal of this paper was to help to develop a theoretical approach regarding the contribution of information technologies on the hospitality industry and suggest a practical tool for the adoption of IT by the personnel of the industry. It has been concluded that **the adoption of technology by hotels requires a differentiated approach in investigating employee acceptance of technology, due to the complex procedure affecting both the internal and external variables and their unique characteristics.**

**Nejadirani et al (2011)**, in this paper authors has shown the effect of applying information technology on efficiency of Parks and Green Space Organization of Mashhad Municipality. The main objective of this research is to find out whether there is substantial and significant difference between Parks and Green Space Organization of Mashhad Municipality before and after application of Information Technology. Based on the results of research hypothesis test, it is concluded that using information technology (IT) in Mashhad Municipality Department of Parks **has increased the best use of human and informational resources.** In fact, it has been concluded that using **IT has decreased the expenses and increased efficiency in organization** under study.

**Baloh et al (2003)**, in this article authors has depicted the influence of internet and information technology on work and human resource management. It has observed mainly innovations and changes in areas of staffing, motivating and leading and discusses possible adaptations of organization and business. The paper has fulfilled its main goal with presentation of some of the changes that have been brought by the Internet and Information and Communication Technology (ICT) to the field of recruitment and development of employees, and to enabling new ways of work. According to the statistical data used in this paper regarding the use of Internet and teleworking shows, mentioned **changes are already so important today and it cannot be neglected** by senior managers of any firm.

**Ferreira et al (2009)**, in this paper author has stated the effect of online social networking on employee productivity. This research investigated recent internet developments as seen in the social Web and specifically investigated the effect of OSN on employee productivity and what some of the consequences would be if employees were allowed unrestricted access to these networks. This empirical study was carried out by performing interviews with key individuals and conducting a formal questionnaire aimed at measuring the target group's knowledge and use of various popular OSN sites. The findings has indicated that a large section of the sample was willing to visit an online social network on either a daily or weekly basis, which signified an **opportunity of virtual interaction within the organisation.** It has been suggested that if

employees experienced the value of OSN for personal purposes they would probably also value a similar network aimed at their organisation in particular.

**Alraja et al (2013)**, in this paper authors have done a field study on the effect of information technology in empowerment public sector employees. This study aimed to investigate the effect of information technology in the empowerment public sector employees (Participation, Performance Improvement), for the Jordanian public sector employees. To achieve the purpose and testing of hypotheses a questionnaire was developed especially for the collection of data from a study sample, which consisting of (100) employee at Amman Municipality. Results of the study showed that Amman Municipality used the Information Technology in high percentages. It found that **there is a significant relationship between Information Technology and Empowerment** public sector employees, and it has a significant impact on empowerment public sector employees. It has been suggested that Amman Municipality should give more attention to information technology especially to use internal communications network to connect devices with each other's, which allows sharing of information and knowledge among employees, and train its employees on the use of information technology.

**Oluwatolani et al (2011)**, in this paper authors has presented the current trend in the application of IT in the banking industries in Nigeria and given an insight into how quality banking has been enhanced via IT. The paper further exposed the **disposition of IT facilities** in the Nigerian Banking industry **has brought about fundamental changes in the content and quality of banking business** in the country. Three categories of variables that relate to the use and implementation of information technology devices were considered in this paper and they were the nature and degree of adoption of innovative technologies; degree of utilization of the identified technologies; and the impact of the adoption of IT devices on the bank operations. It is concluded that there are huge opportunities for m-Commerce implementation in Nigeria based on the rate of growth and the diffusion of mobile devices.

**Ali et al (2013)**, here authors proposed a model joining the Task Technology Fit (TTF), the Technology Acceptance Model (TAM) and Delone & McLean model to evaluate the performance of users in the Tunisian organizations. The model was tested using survey data collected from 314 users of the information system. The results of the study indicate that the **quality of the system affects the performance of users, both directly and indirectly**, which shows a strong direct correlation between measures of system quality and user performance. The results also showed that the integration and reliability are the most important measures which contribute significantly to user performance and explain much of the variance in user performance.

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**Rivera et al (2015)**, in this paper authors aimed to explore how ICT can be used by organizations to support sustainability initiatives. In this research paper, they examined how a leading organization deploys Internet-of-Things as an example of an ICT application to support various sustainability initiatives. This study has provided useful practical examples to show how **ICT can be used to support sustainability practices within organizations** and clearly illustrate the 4 roles of ICT which are currently lacking. This research has demonstrated possible ways where ICT can be used to help an organization address the TBL. The evaluation of the possible roles of ICT indicates that Information and Infrastructure roles are the most widely applicable role because in every IT or IS there must be data and information involved in business processes. The study findings enhance the current understanding of how ICT can support sustainability practices of organizations.

### **Concluding observation**

The various reviews helped to identify the variables related to ICT and employee productivity. They are ICT helps to make existing process simpler, role of ICT is more positive than negative, Increases the employee relationship, strong impact on employee performance, positive effects on the profitability, contributes quality of work performance, need for differential approach to address complex procedure and unique characteristics, increased best use of human resources and organizational efficiency, change is the need of hour, opportunity of virtual interaction within the organization, significant relationship between ICT and empowerment, ICT brought fundamental changes in the quality and content services, ICT affects performance of users both directly and indirectly and it can be used to support sustainability practices within the organization.

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