

Role of ICT in Managerial Effectiveness in the Changing Era of Technology: A Quantitative Investigation

Neha Rani

Assistant Professor, Department of Commerce, Graphic Era Hill University, Dehradun
Uttarakhand India 248002

Article Info

Page Number: 183-188

Publication Issue:

Vol. 68 No. 1 (2019)

Abstract: Information and Communication Technology is one of the vital forces important for the growth and survival of an organization. It is crucial for every organization to perceive the idea of ICT. ICT in today's technological era is more than just a study; it is a kind of innovation and new business style which is important for the managerial effectiveness of an organization. It is vital for the top managers to successfully implement the notion of Information and Communication Technology. It doesn't matter whether the organization is small, medium or large ICT is essential for the smooth running of the business. In a capital intensive business ICT helps in the efficient functioning of the business. As the world is drastically transforming towards digitization ICT has emerged as a tool to bring effectiveness in the managerial activities of an organization. This paper will highlight the role of ICT in managerial effectiveness and some of the issues and challenges related with the same.

Article History

Article Received: 09 September 2019

Revised: 16 October 2019

Accepted: 21 November 2019

Keywords: Role of ICT in Managerial Effectiveness, Knowledge Management, Information and Communication Technology, ICT and Management Effectiveness, Organizational Learning

Introduction

Information when taken collectively can be called as knowledge. It not only involves grasping the data or information but it is a complete process of understanding. When knowledge is considered it is made up of data and information where data is unprocessed information or details while information is processed data, knowledge is called as meaningful information important for communication. For the managers and top level leaders it is very important to have another trait in their personality which is competency. The competency will help in the establishment of organizational learning at every level. It will also help in the understanding of vital information to every individual of the organization. Information and communication technology not only helps in the collection of correct and accurate data and information, it also ensures that the particular piece of information is communicated to the concerned person. In the world of digitization the information and communication technology has emerged as a new form of technology which ensures the growth of organization in proper direction. The establishment of proper ICT will help in achieving the objectives of the company in efficient way. The ICT will also help in the improvement of performances of individual which will directly contribute in the growth of the organization. The management of proper knowledge through a well established ICT infrastructure will also help in transforming the information into intelligence. The proper management of ICT will help in harnessing the only part of information which is important of the company (Gressgård, Amundsen, Aasen, and Hansen 2014).

When the Information and Communication Technology is connected with the managerial part of an organization, its effectiveness is measured on two basic principles: coding the correct piece of information and establishing the efficient network for communication. The communication network without holds an important part for the implementation of different processes necessary in working of the business. It is crucial to establish an effective network of communication. This network can be established through a digital channel in this technological world. As the businesses are shifting towards digitization, it can help in building the proper structure of ICT. The efficient ICT structure can be built through Artificial intelligence, information management system, data mining and data storing system and building a strong decision making system. The approach behind all these systems is modern and technological. The ICT and its proper management is very important in financial industries because this sector faces a lot of changes in rules, regulation and procedures on regular basis. Therefore there is a need of better understanding and knowledge of this information also to communicate all these changes in all the departments of an organization a proper structure of communication is needed. Here ICT plays a vital role in gathering of information and its transmission (Birchall, Giambona, 2008 Marquié, Jourdan-Boddaert et al., 2002).

Innovation is very important for the growth of any business. Innovation not only implies developing new products or services for the business but also implementing different business strategies and management practices. The innovative approach also means the use of existing resources and information in different and unique ways. In recent times companies are focusing more on the knowledge based innovation to think in an unconventional way. To gain more knowledge companies are accessing different sources of information. Here it is important to note that sources of information are mostly external and rely more on the external sources which are sometimes difficult to access. For better access of these sources management of the companies need to identify the accurate source that can reduce the burden of other employees and they get the correct part of the information. The main problem with many sources of information is that the correct and crucial part of the information is distributed. The management or top leaders need to compile the needed information at one place. This compilation is an innovative process and in this process Information technology can help the managers in harnessing and compiling the exact information needed for the organization (Islam, 2016 and Amabile and Krame 2007).

Literature Review

In a study it was found that for establishing the effectiveness of an organization the managers need to recognize the importance of ICT at every level. In the era of globalization and shift in work culture the ICT has emerged as a force generator. Managers are working more on ICT as people are bound to work from anyplace, anytime and anywhere. This approach has specified the importance of communication mainly in electronic and technological form. It was also found that more than average time is spent on e-mails for communication which sometimes is not important as it generates more traffic. The managers need to make a good use of ICT in decision making, and networking. To establish an effective communication network apart from e-mails, messaging and video conferencing, managers need to establish a

proper network between IT managers and professionals so that they can create a substitute of traditional communication network for a particular organization. And this communication network will help the employee to stay connected with each other and share the information which is necessary for the organization (Burney, Mahmood, & Abbas, 2010).

A research was established regarding the Information Technology and it was found that the technology related to telecommunication, broadcasting media, and other same media is called as IT. The idea of IT is wide in itself and it comprises a digital approach and it is not only limited to telecommunication and broadcasting. It means any kind of technology that transmit, stores, develop and shares the information. The recent developments in ICT have helped the management to connect multiple people in single frame and at single point of time. When communication is considered it just not only means transfer of information from person to other or from one level to second level, it also involves various channel that are being used in the process of communication. The businesses that have multiple branches or departments, there is a need to establish an effective structure for communication. Organizational communication is very important in exchange of information and ideas at every level of organization. Effective communication helps in adaption of changes quickly that are important for the development of an organization. The organizational communications are of two types: internal organizational communication and external organizational communication. The internal communication helps in the efficient working of an organization while the external communication helps in maintaining good relation with the external environment (Brady, Brookes, Fellenz, 2008 and Ion, Andreea, 2008).

In a study it was found that management of Information Technology means a computer based system that give various tools to the managers for their effective working. These tools can be in form of software and applications. These tools help in taking proper decisions, harnessing data resources, management of people, management of projects and other computerized processes that helps in the proper management. This efficiency has helped in implementation of fully automated Information and Communication Technology. This technology includes Intranet, extranet, website, software, servers, cloud technologies etc. For many small businesses cloud computing has emerged as an opportunity creator. Many of the small industries has successfully identified this and implemented the ICT in very profitable manner but for some business lack of knowledge and skill acted as a hindrance in its growth. The inadequate knowledge of ICT has also resulted in low or no understanding of value of ICT. Due to this low understanding the companies failed to build a proper infrastructure for communication (Yeboah-Boateng, Essandoh, 2014 and Baker, 2012).

A research concluded that for an effective implementation of ICT the first step should be towards procurement of knowledge. In this step the management of the company needs to explore various external and internal sources and convert them into an innovative idea. These innovative ideas are of no use if they are not properly communicated to the other employees of the organization. There should be transparency of data and information among the employees. This step also includes a framework to establish a structure for selecting accurate information and processing the same. The second step includes propagation of information. It means that the manager should have a completed knowledge about ICT based tools and

purpose of their use. The managers should also ensure the flow of correct information to person at correct time. The managers should also ensure the complete responsibility of information provided to the employee. The communication is useless until the end result is not profitable or it highlights the major issues in business process. Therefore the third step includes the use of effective management system that helps in measuring, identifying and highlighting the long-term goals, objectives and issues if any. There should be timely reporting to upper-level management. All these steps help to identify the effectiveness and competency of the manager (Lindh and Rovira Nordman, 2017).

Objective

1. To know the role of ICT in managerial effectiveness in the changing era of technology

Methodology

The researcher had considered people to know the role of ICT in managerial effectiveness in the changing era of technology. The primary data is collected with the help of a survey using structured questionnaire and random sampling method. The data was analyzed and evaluated using mean to get the results.

Findings

Role of ICT in Managerial Effectiveness in the Changing Era of Technology

S. No.	Statements	Mean Value
1.	ICT helps in boosting customer satisfaction through better communications	4.14
2.	ICT helps efficient scheduling of manpower and jobs	3.68
3.	ICT enables a better communication between employees, suppliers and customers	4.23
4.	It helps organizations to maintain enough stock to meet demand of the customer, hence providing better inventory management systems	4.32
5.	ICT helps in managing large amount of data hence making it instantly available for everyone in the company	3.95
6.	Managers can track sales on daily basis, hence boosting employee productivity on lowering the sales than expected numbers	4.03
7.	With the help of ERP software and decision support system, managers can see company performance in real time	3.83

8.	ICT helps companies in setting up their businesses internationally by easily setting up multi language website	3.76
9.	ICT allows to store important company data in database hence reducing the paper waste	3.88
10.	ICT helps employers in providing trainings through video conferencing as per the employee's convenience	4.17

Table above is showing role of ICT in managerial effectiveness in the changing era of technology. It is found that ICT helps organizations to maintain enough stock to meet demand of the customer, hence providing better inventory management systems with mean value 4.32, ICT enables a better communication between employees, suppliers and customers with mean value 4.23 and ICT helps employers in providing trainings through video conferencing as per the employee's convenience with mean value 4.17. The respondent says ICT helps in boosting customer satisfaction through better communications with mean value 4.14, managers can track sales on daily basis, hence boosting employee productivity on lowering the sales than expected numbers with mean value 4.03, ICT helps in managing large amount of data hence making it instantly available for everyone in the company with mean value 3.95 and ICT allows to store important company data in database hence reducing the paper waste with mean value 3.88. The respondent shares that with the help of ERP software and decision support system, managers can see company performance in real time with mean value 3.83, ICT helps companies in setting up their businesses internationally by easily setting up multi language website with mean value 3.76 and ICT helps efficient scheduling of manpower and jobs with mean value 3.68.

Conclusion

Information Communication Technology plays an important role in the managerial effectiveness of an organization. From the above research it is concluded that data and information are related to each other and ICT acts as a link to connect them. The ICT also helps to harness the information and data collected. The use and application of ICT act as business strategy needed for the growth and success of an organization. For the effective implementation of ICT various tools have been developed that not help in finding and identifying the correct and accurate information but also ensures proper communication within and outside the business organization. From the above research it is also concluded that the implementation of ICT is not just a process, it is an innovation approach which every manager needs to develop for the growth of an organization. For the effective working of an organization ICT acts as a platform which ensure timely and regular flow on information, it also ensure that the particular piece of information is share to the concerned person. The effective management of ICT is helpful in many ways. It plays an important role in the smooth flow of information that builds the positive reputation of the business and trust among the employees and the customers towards business. With the help of ICT the management

can take proper and accurate decision as the ICT is based on technology, artificial intelligence which reduces the workload and makes work easy and feasible for the manager.

References

1. Yeboah-Boateng, E.O., Essandoh, K.A. (2014). Factors Influencing the Adoption of Cloud Computing by Small and Medium Enterprises in Developing Economies, *International Journal of Emerging Science and Engineering*, 2(4)13-20.
2. J. Baker, (2012). The Technology–Organization–Environment Framework, in *Information Systems Theory: Explaining and Predicting Our Digital Society*, 1(Springer) 231–245.
3. Gressgård, L.J., Amundsen, O., Aasen T.M., and Hansen, K. (2014). Use of information and communication technology to support employee-driven innovation in organizations: a knowledge management perspective, *Journal of Knowledge Management*, 18(4) 633 – 650.
4. Brady, M., Brookes, R., Fellenz, M.R. (2008). Researching the role of information and communications technology (ICT) in contemporary marketing practices, *Journal of Business & Industrial Marketing*, 23(2)108-114.
5. Lindh, C. and Rovira Nordman, E. (2017). Information technology and performance in industrial business relationships: the mediating effect of business development, *Journal of Business & Industrial Marketing*, 32 (7) 998-1008.
6. Birchall, D.W., Giambona, G. (2008). The impact of ICT on the work patterns of managers and their organizations, *EuroMed Journal of Business*. 3(3) 244-262.
7. Amabile, T.M. and Kramer, S.J. (2007), “Inner work life: understanding the subtext of business performance”, *Harvard Business Review*, 85(5)72-83.
8. Islam, N. (2016). The Use of Information and Communication Technology (ICT) and Business Management: Contemporary Issues and Challenges,
9. Ion, P., Andreea Z. (2008). Use of ICT in SMEs Management within the Sector of Services, *Annals of Faculty of Economics*, 4(1)481-487.
10. Marquié, J.-C., Jourdan-Boddaert, L., & Huet, N. (2002). Do older adults underestimate their actual computer knowledge? *Behaviour & Information Technology*, 21(4), 273–280.
11. Pick, J. B., & Sarkar, A. (2015). *The global digital divides*. Heidelberg: Springer.
12. Burney, D., Mahmood, N., & Abbas, Z. (2010). Information and Communication Technology in Healthcare Management Systems: Prospects for Developing Countries. *International Journal of Computer Applications*, 4(2), 27-28.