

# Information Technology and Communication In A Company : An Analysis

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## Information Communication and Technology in the Industry

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**Abstract.** This research aims at finding out the role of technology and information in the company. Generally, information and communication technology aims at providing a general understanding of information and communication technology equipment. This research aims to examine the importance of the application of information technology for a government to obtain the value chain of information technology, which is beneficial for all aspects of efforts to improve efficiency and effectiveness. The research method used in this research is a qualitative descriptive method through the socialization of questionnaires and interviews to employees of the Bandung City Government to get more in-depth information. The results prove that information technology has a very important impact on employee performance because it will facilitate all activities to be faster, precise, and accurate, including in the Bandung government. It is because it has utilized modern information technology in managing government management. In conclusion, this research is important to improve the understanding that information technology is necessary and beneficial for the government and win the competition with the private sector. The government must have advantages, core competitiveness, strategies, and innovations, especially in information technology.

### 1. Introduction

Information and communication technology is a challenge that companies must face. Innovation and applications based on information and communication technology (ICT) have become the main driving force for enhancing organizational performance, economic growth, and social change. [1] Information and communication technologies have become valuable business tools for entrepreneurs [2]. Information and communication technology, education/training, and R&D are among the most important elements for establishing an entrepreneurial platform. [3] Entrepreneurship and ICT require skills to adapt to current economic trends. [4] Sin Tan's Kotelnikov explained the level of entrepreneurs' use of information and communication technology, categorized from basic technologies such as radio and mobile phones to email, e-commerce, and information system processes. Using it is more economically valuable and promising for its business. [5] The company's IT capabilities are essential



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for better website management because they can portray comprehensive information and electronic payment systems. [6] Multinational companies put ICT business management at risk in terms of post-acquisition integration, and managing the process of shared value creation is the key to success in performance management. Sin Tan also pointed out that the application of ICT in companies can improve business processes through the internet. Entrepreneurs can communicate with customers via email, file sharing, building websites, and e-commerce. [7- 8]

This research refers to previous research. According to Towhich states, information technology impacts various activities, especially when it comes to regulating business processes to adapt information technology to its environment [9]. Like the importance of information technology is applied to the organization[10]. Therefore, it needs an in-depth discussion of what kind of information technology will be applied. Information technology affects internal control because it will manifest more optimal results[11].

Furthermore, activities that include marketing, finance, resources are inseparable from the advancement of information technology because it will facilitate its implementation[12]. Technological advances are impacting its activities to survive against its competitors. This research has differences from previous research, namely the dimensions of content research and revolution problems. Therefore, it is important to be researched [13].

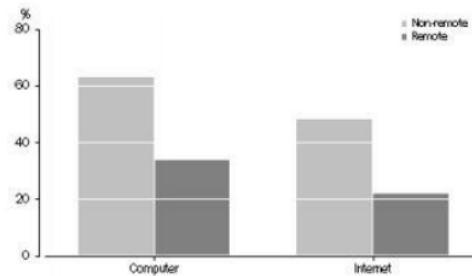
Advances in information technology and communication are bound to affect employee performance. According to Simamora, quoted and translated by Nurhayati, employee performance is the level at which employees meet job requirements [14]. According to Robbins, five indicators measure individual employees' performance, namely quality, quantity, timeliness, effectiveness, and independence. [15] Implementing information technology for a company is to obtain a value chain from information technology, which is beneficial to all aspects of the business and aims at improving efficiency. The research method used in this study is a descriptive method, which is interviews used to obtain more in-depth information.

## 2. Method

The method used is descriptive and qualitative. The goal is to explain the phenomenon in more depth, proving that the data obtained's detail and depth are very important for research. It is because it uses qualitative research. This research does not focus on the value or number of variables measured. We used interview techniques, observation, and dissemination of questionnaires to the Bandung watershed government in the information system section for data collection. The questionnaire results were collected again to map respondents' answers and compare them with interviews and observations. Then, we analyzed the results to obtain conclusions about the benefits of using information technology in government.

## 3 Result and Discussion

The use of information and communication technology (ICT) inactivity has grown rapidly in recent years. Nowadays, most people can easily use modern ICT products, namely iPods, mobile phones, personal organizers, and digital TVs to satellite communications technology, personal computers, and the World Wide Web. This new technology can help organizations maximize the search and exchange of information and disseminate it through electronic publications. This allows individuals to directly communicate with others around the world from home or office. [16] It can be shown the useful use of computers and the internet both nearby and far, which is shown in Figure 1.



**Figure 1.** Chart Using of Computers and the Internet in Remote areas

Based on figure 1, it can be seen that information technology is very necessary for both remote and non-long distance because it will help communication and coordination to realize the company's achievements. The revolution in information technology needs to be done so that the company is ready to compete with other companies in its management.

The role of information and communication technology in the field of government is demonstrated by the emergence of e-government, which proven to improve the cooperation relationship of the central government with other parties, such as citizens through Government to Citizen (G2C), business companies through Government to Business Enterprises (G2B), and other governments through government to government (G2G). Good government is a joint agenda that is agreed on to realize a government that costs less, quality government, professional government, digital government, and government that conducts regulatory reforms. Therefore, governments need to build innovation in the public sector, such as developing the policy framework introducing e-government, including the establishment of new strategies and laws involving all stakeholders in the community. The condition of the utilization of information technology in the city of Bandung is categorized as good because it has used modern technology to manage its government [17].

Through this policy, the government responds from various communities; if the public assesses that the policy can improve the quality of administration in Indonesia, then the community's value will increase as well [18]. Anyone can utilize internet-based information and communication technology by knowing the general principle of information search in the internet world. At least two factors determine the amount of time and effort we spend to obtain such information, namely, level of expertise on topics and knowledge of search strategies [19]. A person's level of expertise is very influential in finding information effectively and efficiently as the person can understand the language and prepare knowledge in the field of expertise [20].

Based on the results of surveys and interviews in the Bandung government, the database required by the government of Bandung is by its duties and functions. The naming system of the database used is adjusted to the function of the database in question, for example, the database containing recapitulation data from each work unit and used by the regional head, regional secretary, and secretary of the council for reporting, decision making, and strategic planning of local government named "executive database." To prevent data duplication in some work units, some work units that require the same data must use the same database. Therefore, one database can be used by several work units to build its information system.

#### 4. Conclusion

In the application of information and communication technology, the Bandung Government has been quite complete and has used modern technology. It must be realized that information and communication technology is just a tool that will not create any change if it is not supported by adequate human resources and work culture to run these tools.

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### References

- [1] Yunis, M., Tarhini, A., & Kassar, A. 2018. The role of ICT and innovation in enhancing organizational performance: The catalysing effect of corporate entrepreneurship. *Journal of Business Research*, **88**, pp. 344-356.
- [2] Yuldinawati, L., Tricahyono, D., Anggadwita, G., & Alamanda, D. T. 2018. Towards a framework for ICT-based entrepreneurship development through business incubation processes: case study of a techno park. *International Journal of Business and Globalisation*, **21**(1), pp. 32-45.
- [3] Alderete, M. V. 2017. Mobile broadband: A key enabling technology for entrepreneurship? *Journal of Small Business Management*, **55**(2), pp. 254-269.
- [4] Atueyi, N. C. 2018. Information communication and entrepreneurship. *Nigerian Journal of Business Education (NIGJBED)*, **4**(1), pp. 294-299.
- [5] Ul-Hameed, W., Shabbir, M., Imran, M., Raza, A., & Salman, R. 2019. Remedies of low performance among Pakistani e-logistic companies: The role of firm's IT capability and information communication technology (ICT). *Uncertain Supply Chain Management*, **7**(2), pp. 369-380.
- [6] Heim, I., Han, T., & Ghobadian, A. 2018. Value co-creation in ICT services company: a case study of a cross-border acquisition. *Journal of East-West Business*, **24**(4), pp. 319-338.
- [7] Tan, K. S., Chong, S. C., Lin, B., & Eze, U. C. 2010. Internet-based ICT adoption among SMEs. *Journal of enterprise information management*.
- [8] Basheer, M., Siam, M., Awn, A., & Hassan, S. 2019. Exploring the role of TQM and supply chain practices for firm supply performance in the presence of information technology capabilities and supply chain technology adoption: A case of textile firms in Pakistan. *Uncertain Supply Chain Management*, **7**(2), pp. 275-288.
- [9] Janaki, D., Izadbakhsh, H., & Hatefi, S. 2018. The evaluation of supply chain performance in the Oil Products Distribution Company, using information technology indicators and fuzzy TOPSIS technique. *Management Science Letters*, **8**(8), pp. 835-848.
- [10] Lee, M., Yun, J. J., Pyka, A., Won, D., Kodama, F., Schiuma, G., ... & Zhao, X. 2018. How to respond to the fourth industrial revolution, or the second information technology revolution? Dynamic new combinations between technology, market, and society through open innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, **4**(3), p. 21.
- [11] Mardhatillah, A., & Sari, D. P. 2019. Do Married Woman Employees Need Counseling at Work? A Qualitative Study on the Motivation: Case Study of Sales Women at Information Technology Company. In *International Conference on Psychology and Communication 2018 (ICPC 2018)* (pp. 45-59). Atlantis Press.
- [12] Nurhayati, Dina. 2008. Pengaruh Gaya Kepemimpinan dan Iklim Kerja Terhadap Kinerja Karyawan Perusahaan Kerajinan AKP .CRAFT Bantul. Skripsi. Universitas Negeri Yogyakarta.
- [13] Robbins, SP 2006. *Perilaku Organisasi*. Jakarta: Prenhallindo
- [14] Petiz, S., Ramos, F., & Roseiro, P. 2015. The use of information and communication technologies in organizational learning practices: A research study in an innovation-oriented Portuguese organization. *International Journal of Advanced Corporate Learning*, **8**(1), p. 4.
- [15] Müller, O., Fay, M., & Vom Brocke, J. 2018. The effect of big data and analytics on firm performance: An econometric analysis considering industry characteristics. *Journal of Management Information Systems*, **35**(2), pp. 488-509.

- [16] Zhang, J., Li, R., Li, H., Skitmore, M., & Ballesteros-Pérez, P. 2019. Improving the innovation ability of engineering students: a Science and Technology Innovation Community organisation network analysis. *Studies in Higher Education*, pp. 1-15.
- [17] Bian, L. 2017. Analysis of Internal Control of TUORI Technology Company. In *2017 7th International Conference on Mechatronics, Computer and Education Informationization (MCEI 2017)* (pp. 218-221). Atlantis Press.
- [18] Anggadini, S. D., & Susanto, A. (2017). Study of Resources Allocation on the Implementation of Accounting Information System. *Journal of Engineering and Applied Sciences*, **12**(11), pp. 9255-9259
- [19] Akhmetshin, E. M., Vasilev, V. L., Mironov, D. S., Zatsarinnaya, E. I., Romanova, M. V., & Yumashev, A. V. 2018. Internal control system in enterprise management: Analysis and interaction matrices, **2**(3), pp. 102-112.
- [20] Al Shobaki, M. J., & Abu-Naser, S. S. 2017. The Role of the Practice of Excellence Strategies in Education to Achieve Sustainable Competitive Advantage to Institutions of Higher Education- Faculty of Engineering and Information Technology at Al-Azhar University in Gaza a Model.



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