Information Communication and Technology: An Introduction

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Abstract. This study aims to explain how information communication technology can change the way of communication in the office. It makes it easier to provide information through groups that the office has created so that there is no need to face-to-face to provide information. Communication information technology can change the way to meet face-to-face meetings. It is advanced to being online, like using a laptop and cellphone. The method used in this study was a descriptive method with observation and interviews to obtain the required information. This research shows that the development of ICT can promote communication in the office because it can convey information more effectively and practically. To communicate with each other, they don't need to meet face to face because there is already a media that helps them make it easier. The conclusions obtained in this study are that information technology is very helpful for offices or companies to make it easier to convey information to office employees or office superiors very quickly and practically.

Keywords: ICT, Technology, Information, Communication.

1. Introduction

Relevant to the government's vision, it is necessary to establish a department of KOMINFO for Governance in the field of Information and Communication Technology (ICT) Standards (Hasibuan & Santoso, 2005; Presidential Instruction No. 3 of 2003, 2003), must benefit from it. It is distributed evenly by all Indonesian people. However, there are many places (rural areas) whose wishes do not come true after the availability of ICT, including human resources and infrastructure, so it does not allow the regions to implement governance in the ICT sector [1]. With that, we hope that people can experience information and communication technology equally.

A study studied the master plan of information and communication technology (ICT) village government offices. Analyze software requirements and ICT hardware and
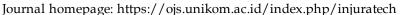
optimization related to the appropriate use of computer equipment (hardware and software) to support village government offices' public services [2]. Another study also described The most useful ICT tools in the office: computer systems, printers, electronic data interchange, the internet, and customized project management software [3]. There are also studies explaining how to apply important information and communication technologies (ICT) in rural and urban areas. The village population still has a lot of conventional information, such as (a) the village population data recorded in the register; (b) using typewriters to make stationary application paper. This incident affects village officials and villagers because people there often make mistakes and waste time and money. Therefore, we need a system that leads to e-government to solve the existing problems [1]. Mokgadi and Thapelo stated The effective and sustainable use of ICT is essential to meet the teaching needs of the 21st century. The integration of ICT is not just a supplement to existing practices. [4]. Another study stated Before the advent of information and communication technology (ICT), Professionals in office technology management paperwork and typewriter as working tools. Recently, ICT introduces new areas to the field through computers and other means of electronic equipment, making the daily transformation of the industry a Blanton, Moorman, and Trathen (1998) argue that these new computer technologies have changed the way we participate in common activities[5]. One of the studies also explained that Information and Communication Technology (ICT) had become a vital engine of growth for organizations. It has created opportunities for many individuals, firms, and communities globally. It has transformed the nature of organizational work and has equally changed work itself. The computer has metamorphosed from being a mainframe to mainstream office use. It has certainly made office work more interesting and more productive. Computers are replacing typewriters, and mobile (cell) phones are computing with calculators, and fax machines are struggling with emails. The way businesses operate these days have changed all due to the advancement of ICT. [6]. Medical informatics is considered an important role in medical research and health care. Communication and Information Technology represented by office websites, computerized office management Systems, email communications, and electronic, oral health records can improve doctors' and patients' information. [7]. Ratheeswari said that ICT influence is more in schools. Since ICT provides more opportunities for two students to adapt to learning with teachers and teaching according to personal needs, society is forcing schools to respond appropriately to this technological innovation[8]. Ogheneovo said Information and Communication Technology (ICT) could be regarded as the foundation of a country's ICT, the survival and development of a country in a rapidly changing global environment. Challenge Education planners and curriculum designers to solve many important socio-economic problems, such as reliable infrastructure, skilled human resources, open government, and other important issues skill-building [9]. Another study also stated in the enterprise, an effective way to improve productivity is to improve the level of technology [10, 11].

Unfortunately, previous research has not discussed Information Communication Technology, which changes communication in offices, especially the secretariat of Universitas Komputer Indonesia. Therefore this study focuses on how information communication technology changes the way of communication in the office. The purpose of this study is to find out how much influence information technology has in influencing communication procedures in the office. It can make it easier for employees or office officials to get or disseminate information quickly and efficiently, such as online meetings, spreading announcements, and obtaining other information. The method used in this study is a

descriptive method with observation and interviews to obtain the required information. From previous research, we can capture how big the influence of ICT is on work efficiency.

2. Method

The method used was a method content analysis, as Emzir defined, content analysis as an in-depth analysis which can be done with both techniques, quantitative and qualitative messages using the scientific method [1]. The characteristics of qualitative content analysis are as follows: qualitative content analysis requires field observation textual and involves the interpretation of the text which is given into the new narrative. On the other hand, that approach used is phenomenological. The phenomenology approach conceptually is studying sightings of an object, event, or condition in individual perception. This approach was used to track or figure out roles in education as a field most important in applying technology media information and communication to influence the development of communication at the office.

The method used for data collection was interviews and observations. The interview is a data collection technique with direct questions and answers to supervisors and employees related to procedures for implementing information technology in changing communication in the office to get the information needed for direction from superiors, meeting results, and important announcements from the office. Observation is a data collection technique by observing the object of research, namely the Secretariat of the Indonesian Computer University. And, this research is also supported by literature studies related to the research conducted.

3. Results and Discussion

Information and communication technology office workers relative. Take the case study as an example. The village government office is an example of Information and Communication Technology (ICT). The data collection is divided into two parts, namely:
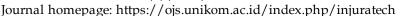
1. Defining the information technology (IT) strategy plan and the questionnaire used to define the information technology (IT) strategy plan is prepared based on the COBIT Framework 4.1 IT Process Domain Plan and Organize (PO) 1.
2. Defining Information Architecture, the IT Infrastructure, and Personnel. The questionnaire used to define the information architecture is based on the COBIT framework 4.1 subdomain processes Determining information architecture (PO2), and defining IT infrastructure and personnel using the COBIT 4.1 subdomain framework Defining IT processes, organization, and relationships (PO4).

With the case of the observation of the village of bamban Banjarmasin, Kalimantan, describing through virtually based research concerning journal outputs and related regulations, with COBIT metda concludes:

At the current village office, the IT process maturity level or the village readiness level based on the PO 1 domain reference COBIT framework on defining IT strategic plans is at a maturity level of 0.88. The PO 2 domain about determining information architecture is at a value/maturity level of 0.66, and the PO4 domain about IT processes, IT organizations, and their relationships are at a maturity level of 0.85. Of the three domains of the IT process, the village government office's level of maturity can be categorized at level 1 (initial/ad hoc). It means that there is evidence that the company knows the problem that must be resolved. However, there is no standard process. Instead, a temporary method is used, which tends to

be handled individually or on a case-by-case basis. Generally, process management methods are not organized).

There are still very few human resources and infrastructure in village government offices, especially those related to Information and Communication Technology (ICT), so further development is needed.

The Collection of Data on Observed Case Areas.

The Ban Bang Village Government Office Information and communication technology's vision and mission are an integral part of the business. Therefore, the ICT strategic plan must conform to the Southern Ban Bang Village Government Office's strategic plan. The following is the vision and mission of the village of Ban Bang Selatan (Ban Bang Selatan) in Kantangan County, Hulu Sungai Regency District in Southern Kalimantan Province. The Vision of Ban Bang Selatan Village is To realize Ban Bang Selatan into an independent village through agriculture and plantations. While the mission is to (1) Repair and add facilities and infrastructure needed to improve human resources through formal and informal education (2) Collaborate with extension workers to increase agricultural yields (3) Increase agricultural business (4) Increase and manage original village income (5) Realizing good and clean government through the implementation of regional autonomy.

With the aid of auxiliary computers such as computer-aided design (CAD), product design will be faster, easier, and with higher fidelity in the industrial field. In the production phase, large companies can use computer-controlled robots with computer numerical control programs (CNC) and computer-aided manufacturing (CAM). According to Quibble, the office has five functional management support types [1]: In daily work, office administration can cover archiving and copying with very few thoughts. Technical functions, office management require sufficient opinions, decisions, and skills to use certain computer applications. Analysis functions, office management require critical and creative thinking and can make decisions, such as creating and analyzing reports and purchasing decisions. Interpersonal functions, functional management need assessment and analysis as the basis for decision-making and skills related to others, such as coordinating team projects and management functions, functions that require planning, coordination of measurement, and motivation, such as budgeting and evaluating employees.

In general, technical information and communication have positive and negative effects on students, schools, parents, and society. As long as the culture of information and communication technology understands its basic assumptions and then uses symbols and positive values to understand, it can also nurture a positive culture. Just like this, learning continues to grow and makes knowledge transfer easier. Despite the negative cultural impacts due to lack of control and laws that have not been well implemented, we should also do our homework together. Recognizing the importance of creating information and communication technology improves quality and makes it better than before.

In business, computer technology is used to process wages, statistics, and accounting (finance). The system computer performs automated daily office work. Many commercial companies are already using computer systems to monitor commodity inventories, perform financial reports, tell fortunes, and plan future business areas. As for information system management (SIM), it was developed by the company to provide the latest information about company operations and help the company make decisions. For the client, the computer system's role is to improve speed, accuracy, and service quality. For trade businesses such as department stores, information system management allows the use of barcode readers (tools

that can detect types, prices, and inventory of goods) to record transaction records easily. In the banking industry and daily activities in the office, computer systems can also provide customers with good services. For example, online systems provide technology-based facility information and communications in credit cards, debit cards, and bank cards. ATM cards, and finally, through mobile phone technology, e-banking service allows transactions via mobile phones.

In the field of engineering technology, some activities are carried out using technical information and communication. For example, nuclear energy experts use computers to make nuclear reactor models. In engineering geology, a computer system with help satellites can study the ground conditions of a certain place to understand the content of minerals that may be mined, such as oil, coal, or gold. In civil engineering, computers can help architects design tall and complex buildings to understand their strength and earthquake resistance. In biotechnology, computers can visualize and perform molecular simulation experiments by making these molecules react and observe what happens. The use of information and communication technology in the field of geological engineering is almost the same. Still, the role of information and communication technology in agricultural land management is more extensive, so that it can be used in the agricultural field as a large farm. Fertilization is done by equipped with a camera. The status input is obtained from the camera and then analyzed by the computer to determine the moisture content and minerals. Therefore, the amount of fertilizer that must be sprayed on the farm can be determined. In this way, fertilization can be performed appropriately.
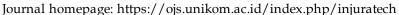
Today, humans can use four modes of transportation: land, sea, air, and space transportation. Inland transportation in major cities globally, computer systems assist in arranging traffic lights and monitoring traffic flow. Then, the ship in the navigation system will be greatly assisted by computers and navigation satellites, so the ship's direction and destination can be determined appropriately. In air transportation, information technology and communication are very important for assessing an aircraft's stability during takeoff and landing.

For the use of technology-based information and communications, anyone can use the Internet by understanding the general principles of searching for information on the Internet. At least two factors determine the time and energy we spend to obtain this information, namely, related topics And the professional level of search strategy knowledge. A person's professional level is significant for effective, efficient, and centralized information search because people can understand the language and compilation of professional knowledge methods in the field. However, the situation is different if someone wants to find information that is not in his field of expertise. The steps that need to be retrieved when starting to search for information (including selecting and completing related materials). Although this process can be frustrating, we can gain a deeper understanding of the research topic and the arrangement of related information through this initial stage.

In the era of information technology, research on the benefits and challenges of ICT to bank office managers has shown that information technology has a huge impact on bank office managers' performance. The bank's office manager is very knowledgeable about the latest technology and modern information technology. In addition, the IT department has greatly improved the confidentiality of information in the operations of bank office managers. The challenge for office managers cited by interviewees is that due to information technology and fraudulent access by bank staff to stored information, acquiring new skills through capacity development to cope with recent trends is low. Bank customers believe that the advantage of

information technology, among many other benefits, is easy access to their accounts. It saves time to access charges and strengthens the relationship between banks, making transactions from one bank to another very easy. Customers pointed out that IT's challenges to customer service include: Bank employee fraud, Inter-bank transaction delays, poor communication networks, poor computer literacy, building bridges between bank employees and customers.

Information technology has benefited all aspects of humankind. Bank office managers will use IT advancements to provide more services, thereby achieving organizational goals with less cost, energy, and time.
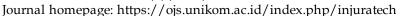
Data Analysis Results

As time goes by, technological development has developed so fast, such as Information and Communication Technology. In the past, office workers only used typewriters to make a letter starting from 1870 to 2000. And at that time, if you wanted to provide information or wanted to build relationships with other offices must use letters, and the communication system is still in correspondence with one another. When the meeting takes place in the offices of members or office officials, they still only use paper sheets to present or give an idea they get. But unlike today, all of that has been made easier by the name of technology. Various kinds of technology have developed at this time. What makes it very easy for someone to communicate is this Information Communication Technology because everyone can easily interact with anyone. Information Communication Technology is also very influential in offices such as, in the past, if you wanted to make a letter you had to use a typewriter. It has been made easier with laptops and computers to simplify making letters. Sending letters have also been developed, such as sending letters via Electronic Mail or setting aside email. This technology makes it very easy for an institution to disseminate information en masse. As for the technology called InFocus, where we can display an image emitted by InFocus, this InFocus technology helps office workers present and describe the plans and ideas they have for their office's progress. The one that makes it easier and has a huge effect in changing communication patterns in the office is the Communication Information Technology called the smartphone. This smartphone makes it very easy for everything related to the world of work because we don't have to open a laptop to send email because there is already an Email application on the smartphone. , we can easily chat via chat, or we can chat face-to-face via Video Call. It can also conduct meetings anywhere whenever we like using an application called zoom or Google Meeting. It has a huge impact on changing communication patterns in the office.

4. Conclusion

Communication and information technology are needed in the village government office environment in South Ban Bang. In general, the management approach process is not organized. There are very few human resources and infrastructure in village government offices, especially those related to Information and Communication Technology (ICT), so further development is needed. Information and communication technology is an integral part of the business. Therefore the ICT Strategic Plan must be by the Strategic Plan of the South Bamban Village Government Office. With increasing knowledge and skills in using ICT, the Southern Bamban Village Government Office can be more advanced in achieving its vision and mission.

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