THE PERFORMANCE OF INFORMATION SYSTEM IN FACILITATING WORK COMMUNICATION BY ONLINE-BASED APPLICATION DURING COVID-19 PANDEMIC CRISIS

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ABSTRACT

The business process needs an information system to support business activities, and it is working with technology. System information has developed small form functions to many functions that become parts of business need. Humans build a business and make activities in the business such as planning, practising, deciding, following, evaluating, controlling, and monitoring. Technology is essential for supporting and creating more solutions to build a business plan and division more completely. Communication is a part of business activities to have a good connection with employees, managers, and business partners. Recently, the pandemic of COVID19 influences everyone, business, economic, makes all in social distance or working from home. Nevertheless, it is not a big issue for humans anymore because technology has replaced humans' needs, and system information occurs to solve the business problem. This study proposes an analysis of the technology used in business management and system information on business in the present. In this research, the methodology analyzed secondary data to analyze and compare some digital communication platforms used by employees while working from home during COVID19 pandemic crisis. This study implies that there is an impact of system information to business and the increasing needs of the information system to support employee communication while working from home. Furthermore, even business needs technology and sophisticated information system; business still needs the human worker to control for business decision making in the future.

Keywords: Business process, Technology, Information System.

ABSTRAK

Proses bisnis memerlukan sistem informasi untuk mendukung kegiatan bisnis dan bekerja dengan teknologi. Sistem informasi telah berkembang dari fungsi kecil ke banyak fungsi yang merupakan bagian dari kebutuhan bisnis. Manusia membangun bisnis dan membuat kegiatan dalam bisnis itu merencanakan, berlatih, memutuskan, mengikuti, mengevaluasi, mengendalikan, dan memantau. Teknologi adalah hal penting untuk mendukung dan membuat lebih banyak solusi untuk membangun rencana bisnis dan divisi secara lebih lengkap. Berkomunikasi adalah bagian dari kegiatan bisnis untuk memiliki koneksi yang baik dengan karyawan, Manajer, dan mitra bisnis. Bahkan ketika pandemi COVID19 berpengaruh bagi kinerja perusahaan, yang menyebabkan semua orang akan berada dalam jarak sosial atau bekerja dari rumah. Namun demikian, ini bukan masalah besar bagi manusia lagi, karena teknologi telah menggantikan apa yang dibutuhkan manusia dan sistem informasi dapat menjadi solusi yang dibutuhkan bisnis saat ini. Studi ini mengusulkan analisis teknologi yang digunakan dalam manajemen bisnis dan sistem informasi bisnis pada saat ini. Dalam penelitian ini, metodologi kualitas menggunakan data sekunder untuk menganalisis dan membandingkan platform komunikasi online yang digunakan karyawan ketika bekerja dari rumah dalam situasi pandemi COVID19 saat ini. Studi ini menyimpulkan bahwa meskipun pandemic

member dampak bisnis dan sistem informasi dan teknologi menjadi kebutuhan bisnis yang urgen, bisnis, masih membutuhkan pekerja manusia untuk mengendalikan pengambilan keputusan bisnis di masa depan.

Kata kunci: Proses Bisnis, Teknologi, Sistem Informasi

INTRODUCTION

An information system is a position of the component that has worked in the process of data collecting, controlling, distributing information to decision making in an organization. It is analyzing, applying in a sophisticated business plan and making something new. Information systems also essential things for business processes such as ordering, purchasing, transferring, organizing, communicating (Kenneth, 2014). Business Information System is part of information technology using infrastructure in business to creating and advertising business's products and services. Nowadays, the technology change enforces business operation to adapt, and its adaptation scale will be depended on the size of the enterprise. Technology has both visible and invisible benefit will help to improve the result of customer need. Even technology infrastructure has an important thing, but it still affects the culture of human working and communication processing online through mobile phones, tablets, laptops, and communication software. In organizational communication with consumers and business partners have used technology to keep a distance of their connection to make it easy for negotiation between buyers and sellers. In this study, base on Information systems facilitate communication via a software application or web browser and working from home during the pandemic of virus COVID19, how its work now?

According to (Hoving 2007), in the early 1990s, technology's innovation was split root and being by a prestigious organization (The National Institute of Standards and Technology). The time that ISDN speed was created for all of the consumers needs home computing applications. In 1994s was added to the National Telecommunication Reform. Then, two companies have related to supporting Information Technology. In the future, will have more companies view in information technology factory to improvement and system development. The business process is the way of business activities to set a goal and business strategy to develop and create products or services provided to customers in the market.

According to (Kaniski, 2018), the business process is a flow of organization/company or enterprise activities that make their resources to achieve a goal and satisfy the customer's need in a specific value of the products and services with quality and price will be accepted. In the present, the pandemic of virus COVID19the social's problem has changed in the world, humans are working on a social distance, education institution has closed, and some businesses have stopped the activities. Even its problem is happening, but any business still works as a normal and changed its works strategies by way of online use. Work from home strategies is one of the best solutions for business activities to working with safe and comfortable. Work form home, working and communicating all activities on a website or online application such as Skypes, Telegram, zoom for video call meetings and work discussing (Sander, 2020).

LITERATURE REVIEW

System Information In Business Process
System information in the business process the way of work organizing, focusing on the value of products and services for management and coordinate work is choosing, collecting, information processing, and knowledge to apply in business planning. The business process enhances by Information Systems in both ways is improving the efficiency of existing processes and innovation on existing process abilities changing in business (Kenneth, 2014). In the concept above, the business process needs human has the knowledge and need help form technology and information system in the business activities. A business data collection used technology information to supporting and organizing, dividing to the places of them.

The System Information Business

SIB has many ways of collecting and providing all information that an organization or company needs. Some companies have different systems collected by email or controlling the sales system. The system information business has in different systems are constituency perspective and functional perspective. In different between constituency perspective and functional perspective will describe below:

The functional perspective of system information in business are systems that use to define in the function of each major in business (Susanto & Meiryani, 2019) :

1) *Marketing and sale information system* is the system information for business supporting in the department of marketing and sale processing; there is defined a customer for the company's products and services to developed and promoted on the products and services for customer's wants and needs. For selling, ordering, contacting, providing, and supporting the company's products and services with quality, confidence, and safety to consumers.

2) *Production and manufacturing information systems* are the systems information for business to supporting business planning, have created, developed, produced processed products and services for control the flow of production with quality and effectivity.

   a) *Accounting and finance information systems* are the systems information for business to supporting in financial assets and fund flows of business process capital used in the business process sustainable in the right way and the right time.

   b) *The HR information system* is the information system for business supporting to record all of the employee's data as skills, experiences, knowledge, work performance, and training to prepare employees planning, benefits, compensation, and career development in advance.

The constituency perspective of system information in business is the systems that use to define each major of business in terms or a group of functions (Sauter, 2014).

   1) **(TPS)** The transaction processing system is the system that has focused on an operational level for recording all daily activities and transactions required to conduct a business sale receipt process and payroll in a business.

   2) **(MIS)** The management information system is the system that has focused on the middle manager in providing present situations and a history of performance information to do the planning, controlling, and decision making for management level.

   3) **(DSS)** Decision support systems or business intelligence systems are the systems to help the manager level to make decisions for a significant problem that is uncertain and quickly changing in the future. DSS has supported analytical more than MIS to used in different models to analyze both internal and external data and a significant amount of data analysis.

   4) **(ESS)** The executive support system is the system that helps to a senior manager to create strategies issues and define of company's trends for long terms of environment and communication. ESS also supported in abnormal decisions to require judgment, evaluation, comprehension, and not agree on an approach that makes an appearance to the solution. ESS showed the graphs and data of an interface used by a senior manager in internal and external sources, that information was delivered to the senior executive by way of the portal, which uses a web interface in a personal business system.

The Function Of Information System In Business

All of the small companies, Department of Information System is the department to recognize and respond to the function of information systems and technology services such as data storage, networks, and maintenance of hardware and software that comprise the company's IT infrastructure. Information System Department also makes for new strategies of business on products and services to develop the technology supporting in business planning. The specialist in the IS department consists of (Low & Chen, 2012):

1) *Programmer*: a person has technical skills writing the software instructions for the program on the computer.

2) *Systems analyst:* the liaisons between a group of information systems and the rest of the business.

3) Information system manager: the leader's team of programmers, systems analysts, and database specialists.

The chief information officer uses the information system department in many companies that the senior manager used an information system in the company, and end-users that used outside of the group of system information department has developed. The information system for a small company may have not a group of information systems. Moreover, the larger companies will have, because in the information system department may organize for several lines (Susanto & Meiryani, 2019). such as :

1. *Decentralized arrangement*: Each organization and business have their information system to manage that officer report to senior and chief information officer (CIO).
2. *Separate department*: In this department, the function of the information system worked as a different function in the same department to support a group of staff, a group of middles managers and senior managers.
3. *Divisional group*: In this group are manage in large firms with several divisions and product lines as consumer product division, Chemical division that have their group of systems information. The group of information systems reports at a high level of CIO and information systems group. In many business activities base on digital networks, they are using *E-business or business technology* and *Commerce*. E-business refers to business using digital technology with the internet connecting to practice in their business activities on the market. E-business also including internal and external business activities management with suppliers and customers within the business partners. The part of E-business purchasing and selling of goods and services on the internet, its call E-Commerce..

The currently of E-business or business electronic new concepts are making a difference of performances and challenges of business professional and provide a new business model that change from used on paper to created via electronic data interchange, email, electronic confirmation, electronic money or electronic goods transfer, and other types of business function based on technology. The supporting of E-business, there are three points (Mgunda, 2019) as:

1) In business factors, the economy growing and creating the power of consumers, Increasing the competition in the market.
2) In the social changing of workforce demand, employee requirement to know about CSR, and government policy has changed.
3) In the technology factor, the product of the life cycle has a lifespan in a short period, every time has innovations, an overload of information, and decreased cost of technology performance.

METHODS

This study has used secondary data to collect the literature from the book and used internet browsing for previous research on system information business-related impact and support in business activities. The primary purpose of this study:

1) To get the information and understand on paper assignment, format, and structure and make a brainstorming to create the specific topic title related to the task.
2) The literature used from the book, browsing the internet to find the journal article, previous paper through in google scholar, or other websites.
3) Used this literature to reading, considerate, looking for the relevant to a topic in which point and take note.
4) The critical point in the literature and related to atopic will use in a paper.
5) To writing the significance points to obtain are structured into the paper with quality analysis.

RESULT AND ANALYSIS

According to Susanto and Meiryani (2019), types of business have many IT functions in business. For small companies will have not a group of information systems; just have one or two employees respond to maintaining network running and information system consultant service. The large companies will have several departments for supporting in different lines and functions in the business process (Susanto & Meiryani, 2019).In this research, system information has many ways to use in business is base on the sizes and structures of each company. In each system, information has useful until present in business and helped to release human workers in some tasks. In this article, the researcher has analyzed five functions: ERP, DSS, IMS, EIS, TPShas supported in the business process for business planning for decision-making, system development, improvement of the strategic company to quickly and easily, and help for manage in all business transactions.

The information system is significant in many companies/organizations; the main components included are hardware, software, brain ware (human resources), and network. These types of equipment are applicable to improve and raise work productivity, efficiency, and effectiveness to assist in achieving the organization's goal. E-business was first introduced in 1994swhen electronic banners were first utilized for promotional and advertising purposes on a website—examples like Amazon, Alibaba, and other applications (Mgunda, 2019).

1) *The role of technology in the Company/Organization* (Scarbrough & Corbett, 2013*):*
Technology is significant in the development of any company and organization; it plays a substantial role in boosting the economy of a particular company; the following are fundamental roles of technology in the company:

- *Operational Function*s the function of company structure that uses by an information technology system to organizing and preparing the flow of officers; the manager level has streamlined and made an information management system to make secure company information.
- *Monitoring and controlling functions* are part of information technology for the managerial level to control each manager in different functions related to information technology to make more efficiency in the company.
- *Planning and decision functions* are information technology that created a strategic business plan and makes some of the decisions in daily business activities. It is also part of corporating and developing for both functions above.
- *Communication function* is the function of the company communicated in the infrastructure of a company or using a free application everywhere and every time to make it easier to communicate with each other for individual or company activity. An inter-organizational function is a unique function of business productivity made connected with business partners for business strategies through information technology as management in supply chain and resource planning of enterprise to make prominent for business to control and divide of resources that have in to smooth running of production.

The five types in the role of information technology affect the business structure and information system department in preparing and managing of the responsible tasks related to information technology and information management.

2) *The functional role of information technology* (Scarbrough & Corbett, 2013):
Some companies have chosen information systems in operational management in their business activities by machine, and the result gets better than the human workforce in productivity. Indeed, we can say that Information Technology (IT) is a critical factor for the development of global business nowadays. Everywhere has used IT inside process the business activity. That is clear because IT makes it easier for business owners to carry out business activity into the market. The reason for implementing IT in companies is to get close with consumers because of the abilities of IT can keep distance and time of the company's products and services near to consumers, so the facilitates of business have grown up in this period because companies using IT. If a company does not use IT to facilitate a business problem, we can say it is waiting for the company's bankruptcy. Do business through information technology to creating an opportunity to open market for improving the business activities and the internet makes more easily

advertising, promoting, the products and services to a customer in not distant. For business development have more influent and flexibility to allow the customer to want and need on the products and services. The advantage of information technology has grown up in the present to support in many functions of a business and incredibility to creating new business modern online with low costing, fasting, and engaging.

The role of IT development for online business s (Mgunda, 2019), includes:

1. IT facilitates the dissemination of information for online business development in various regions of the world as the company used E-commerce to selling books, music, videos, games, and electronic goods.
2. The experts in the IT field also assist in expanding and growing online in business on the internet. A significant number of experts in the IT field lead to the improvement of many online business systems. Online businesses are very vulnerable to credit card tapping, which causes consumers' disinterest in this business. Nevertheless, with the amelioration of the system, the confidentiality of consumer identity, and the product again, they trust to buy the need they want online.
3. Online businesses are popular because of the flexibility. Seller does not need to be in the shop to wait for customers, but with computers and connectivity, the seller can sell the products throughout the inside and outside country. Purchasers do not have to tire out to buy their needs because by only buying online, the purchased goods delivered directly to his address. The researcher has analyzed before and after information technology use in the business process and the vital thing of technology. In this research have analyzed between human process and technology in some tasks that technology has replaced the human in business development. Before, businesses used human activities to advertising, selling, promoting, developing on products and services. After that, human workforce replacement by technology and make more quality and efficiency.

Both of the researchers above business need technology and information system. Even technology and system information replace the human process, helping to solve tasks that humans cannot do at the right time and right cost. Besides this, the information system is facilitated for management positions that can easily control, analyze, evaluate, and make decisions on business tasks. Besides, technology and information systems in the present have more purposes are communicating, meeting, and discussing. Present the world has changed, because of the pandemic of virus COVID19 effect to any business. Even though technology and information systems still can respond to business activities in different ways by using online duty for work from home to make it more comfortable with time working and get safety. During a social distance, the employee cannot come to the office for working; the student cannot go to school for studying, the customer cannot go to a public place or market buying something, the seller cannot meet the customer to promote and advertise the products and services by using online instead for working, meeting, studying, discussing, buying and selling. In quarantine time, any system information used as standard, but they are created more applications have using for supporting employee time working during a social distance. Different companies have chosen different software communication to process business activities to make them more easily, quickly, and secure. Thi study analyzes three applications used in business by video, call, chatting, and make a group conference for work form home condition describes below:

ZOOM

In early 2019s and now, the zoom is the second most popular software after Skype business to make video conferencing groups of people for studying, discussing, meeting, working, webinars, and chatting on-call live time. Zoom can do on video conferencing and discussion chatting for companies between 500 employees or more. Currently, the haft of fortune 500 companies using Zoom to help in business communication during the pandemic of virus COVID19 and in advance (Bernazzani, 2020). Even zoom has many functions with attractive, but advantages and disadvantages are still faced by the users.

The pros of Zoom coordinates for business communication for live video conferencing with a group of many people, audio recording, chatting, feature to document saving, video screen sharing during a call, and free fee charge for 100 participate who joint in a video call. After knowing about the pros, people should learn to contrast a few things as:

1) The monthly costing will charge for business and enterprise used zoom by the host from $14.99 to $19.99/monthly.
2) Zoom is still updating in some features, accesses in many people's poor in connection, and quality of video call unpredicted in any users (Bernazzani, 2020).

Figure 1.Business video conferencing
Source: Cameron (2017)

Telegram

Telegram used to help in business communication on multiplatform, audio, calling, and messaging services—founder of Telegram by Russian entrepreneur Pavel Durov. On 20 October, 2013telegram rolled out for Android in Alpha and has an estimated 200 million monthly users in the present. The function of Telegramsamewith other massaging applications can create group message user conversations, audio call, contact call and send files, photos and documents (Gordon, 2019). The pros of the telegram are secure of phone number connected in private both of data calling and chatting in group or personality. The cons are on the video call still can not use calling in audio-only (Gordon, 2019).
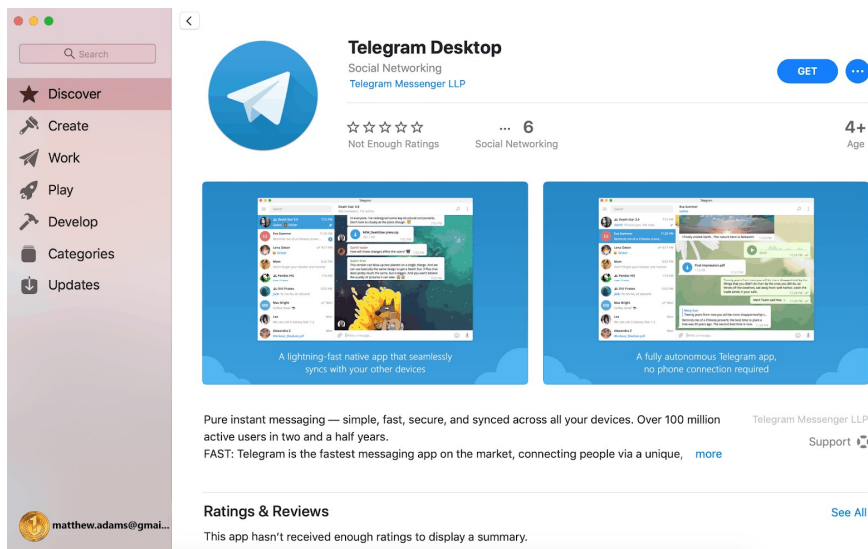
Figure 2.Telegram for desktop
Source: (Bazoyan, 2020)

Skype

Skype is a communication software used for business communication between employee to employee, company to other companies with a group of people through audio or video call and messaging service. Now, the effect of pandemic virus COVID19, Skype still in an excellent communication tool supporting in business even has other created new application software. Skype have VoIP service that users can make easily to receive free voice and video call by internet using on a cell phone, computer and web browser. Chatting with other people in skype contact can use international call-talk; if they have used a skype account, it will free charge (Unuth, 2020). Even Skype worked for a long time in software communication in business; it is also has a bit small thing of contrast on it (Unuth, 2020).

Figure 3. Skype group video call
Source: (Wedziuk, 2016)

CONCLUSION

In the present, technology use in daily activities also in business, but this paper focuses on business between employee and employer, customer and producer, seller, and buyer in direct or indirect ways. More than the technology used in business, technology as need in daily living style for everyone in different ways of themes business people, students, workers have brought it everywhere and every time such as cellphone, laptop, tablet to checking, controlling, and working. Apart from technology, System information is also facilitated in business to reach the goal and achievement at the right time and right place. During the pandemic of virus COVID19, the world has fluctuated need everyone quarantine to stay home and stay safe. The social distance has applied, technology still makes the closeness between them, system information makes it easy for them to work from home, communicate application work with health and safety but provide an excellent connection to everyone, everywhere, every time. The result and discussion above the business process need information systems and information technology to applies in business activities. It has even affected humans in some ways, but humans still need technology to support, create, and develop a human idea to achieve their goal ahead. It does not only in the business process, for other sectors like education, before having online learning, but not accessible to everyone. At present, the school has closed, students and lectures still stay at home, and their resident place does not allow to go to school and class meeting. It is not the matter of them, just use technology at their place to connected internet and browsing on a website to looking for what are they want and need to learning and logging in which application software have mentioned above to make the group studying, discussing, conferencing, and talking with the lecturers, family and friends have user account connected.

If we are looking to other sectors like online business, we have grown up in this situation because everyone is afraid to go outside and change their behaviour to think about online to ordering, transferring, and purchasing the goods and services instead. Even online business is increasing, but any online business is still decreasing in this situation. The examples of online transportation services such as GoJEK and GRAB have not for motorbike and open for transportation by car service only, because motorbike allowed to delivery service. Technology and information systems are essential things in business and daily human activities, but everything unstable in effective and affective in forever. Even though today people are looking for an essential thing of its, it might be something that will change to impact it in the future. This study has reviewed previous researchers for system information and technology support in

the business process. Therefore, the authors would like to suggest even the importance of system information and technology's effect on business but have an impact on human workers in the future. Therefore, businesses need technology to support, but humans still need to manage technology.

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