

Chapter I Introduction

I.1 Background

Information Technology (IT) is a general term that describes any technology that assists humans in creating, modifying, storing, communicating, and disseminating information (Suryana, 2012). In this era, Information Technology (IT) is essential in developing education, economy, industry, and the country. The use of IT currently dominates in all fields of work. Studying the science of IT is very important; several educational institutions, especially in Indonesia, have implemented IT as one of the subjects studied starting from elementary school. IT has many definitions; according to Richard Fox (Fox, 2020), previously, IT is defined as a career that uses computers for work, starting from data, software, hardware, and people who fight to maintain computers in a company. This definition is disputed because, with the development of the times, many jobs, such as doctors, architects, and others, use IT in their work. IT can also be defined as any technology that can assist humans in creating, modifying, storing, communicating, and disseminating information (Suryana, 2012b). In the process, IT requires information that can be defined as data that has been processed so that it can be used.

IT has a significant role in the operational activities of a company. In this era, a business would succeed if the organization managed to utilize the fully function of IT. Not only gain competitive advantage, utilizing an IT in a business will increase efficiency, streamline a business process, and even evaluate for further development. Utilizing IT also helps identify risks and find an opportunity in business processes. The rapid advancement of information technology causes all aspects of life to change. Starting from lifestyle, social interaction, education, and others have taken advantage of the use of information technology. Because IT is very important and crucial in organizations, the use and development of IT must be agile. According to Tallon, Queiroz, Coltman, & Sharma on (Janssen & van der Voort, 2020), in business, agile organization is a strategy that helps to quickly adapt and respond to changes in the environment, such as evolving customer needs and advancements in technology.

DeLone in (Vejseli et al., n.d.) also mentioned that the need for agile working patterns is causing the lines between IT and business to become blurred. Agile IT design requires regulations such as IT Governance and Management (ITGM), the aim is to create a structured system and a series of steps that empower organizations to successfully adopt and maintain agile practices.

The development of information technology impacts assimilation in every sector, one of which is the finance sector. The finance sector is a fundamental sector of all innovation and development. Over time, the financial and information technology sectors have merged under the name of Financial Technology (Fintech). Fintech has been attracting attention and acceptance rapidly in recent years. The expectations of fintech itself cause significant challenges for several business organizations in implementing it. This is what causes the presence of fintech to be called digital disruption, where every business organization will try to compete with one another in developing it. This digital disruption offers the potential to improve efficiency with innovation, enhanced supply diversity, and a more competitive financial system that yields market extension augmenting financial inclusion (Vives, 2019). Starting from planning, system integration, governance, and other factors need to be considered for business organizations to be able to adopt fintech. To ensure smooth operations and alignment with an organization's IT infrastructure, it is crucial to undertake necessary preparations, integrate systems effectively, establish appropriate policies, and consider other relevant factors. These actions should be taken in coordination with the organization's Information Technology resources. By doing so, the organization can ensure that all aspects of its IT function are properly synchronized and in harmony with its overall objectives. Therefore, DevOps came as a means of culture shift toward collaboration between development, quality assurance, and operations (Ebert et al., n.d.). DevOps practices promote a culture where development and operations teams work together, fostering shared ownership and responsibility. By shifting away from traditional methods, organizations can foster effective collaboration among teams and employees, streamline the exchange of ideas and suggestions, and

eliminate lengthy and cumbersome processes. The goal is to create an environment where everyone is aligned towards a common objective, enabling faster and more efficient software development and delivery.

Regarding the regulations of fintech, are listed in Bank Indonesia Regulation No.18/40/PBI/2016 about Implementation of Payment Transaction Processing (PTP). According to Bank Indonesia, PTP is an innovation especially related to fintech in order to meet the needs of the community, especially in the payment system, both in terms of instruments, organizers, mechanisms and infrastructure for the implementation of payment transaction processing. Payment transaction processing includes pre-transaction, authorization, clearing, settlement, and post-transaction activities. Payment transaction processing activities are carried out by Payment System Service Providers and Supporting Providers. Bank Indonesia performs direct supervision and indirect supervision of Payment System Service Providers. If necessary, Bank Indonesia shall supervise the Supporting Providers in cooperation with the Payment System Service Providers.

Bank Indonesia Regulation Number 19/12/PBI/2017 concerning the Implementation of Financial Technology. This regulation contains the implementation of financial technology, which is divided into several categories: payment systems, market support, investment management, risk management, loans, financing, and provision of capital, and other financial services. This regulation was made as a response to the development of Fintech in Indonesia. With this regulation, a stable, efficient, and safe financial system is hoped to be used for business organizations and the people of Indonesia.

According to SOE Minister (BUMN) in PER-2/MBU/03/2023, Good corporate governance is a corporate management procedure that applies the principles of openness, accountability, responsibility, independence, and fairness. Therefore, an IT development in a company must be balanced with its governance so that the development goes in the direction that has been set in the company's strategy. Based on the statement above, FintechCo must consider many things in designing it's

digitalization model. Designing a digitalization model requires alignment of IT and its governance. Therefore, this final project was made to design and test a digitalization model of IT and governance management at FintechCo.

I.2 Problem Formulation

The formulation of the problem in this study is based on the problems that have been defined in the background, namely:

1. What is the IT Governance and Management (ITGM) Objectives needed by FintechCo based on the Seven Component in realizing their digitalization?
2. What are the optimal recommendations for the IT Governance and Management (ITGM) Objectives based on the gaps of existing and target state?

I.3 Objectives

The Objectives of this analytics are as follows:

1. Analyze and find out the condition of the Agile IT digitalization at FintechCo.
2. Create a recommendation design based on the Seven Components for the existing and targeting condition.
3. Design an essential optimization of ITGM based on the designed recommendations.
4. Knowing the estimated effect and impact of the recommended IT agile digitalization model at FintechCo.

I.4 Scopes

The Scopes of this analytics are as follows (spesifikasi, framework:

1. This research was conducted by limiting the scope consisting only on IT service management in the fintech department of FintechCo.
2. This research was conducted on qualitative approach based on COBIT 2019 DevOps as a framework of IT Governance and Management and Design Science Research as a research method.

3. This research is subjective because the majority of the data analyzed comes from secondary data and internal information provided by the research team. The decisions and interpretations made throughout the research process are highly dependent on the perspective and understanding of the research team of the context under study. Therefore, it is recommended to consider this subjective nature when interpreting the results of this research.

I.5 Benefits

The output of this project is issuing a IT agile service management design in FintechCo. The benefit and the outcomes of the expected from this project are:

1. For researcher, deepen knowledge about good ITGM and how to implement the IT agile service management in a company, especially in the fintech sector.
1. For FintechCo, knowing what are the factors that hinder the growth or development of IT agile service management on FintechCo and also implement a better way to develop IT agile service management based on the recommendation that has been given.