

CHAPTER 1

INTRODUCTION

1.1 Background

Since the advancement of human ingenuity, technology has lived hand in hand with humans. Its basic form at that period which were stone tools originated hand in hand with humankind.¹ Such form of evolution as anthropologist described as *Homo habilis* or described as “handy man” due to its recognition of its ability surpassing those of other creatures. The technologies of this era were mainly composed for the foraging of food, using a toolkit that slowly became more elaborate and complex.² As mankind slowly gave up foraging as a way of life, in favor of farming or herding, technology radically developed into new tools and technique for the betterment of mankind and the purpose of earning a living.³ This period of time led to the ushering of society into a civilization that is city based, and formed into empires which arose due to the study and growth of technology through the philosophy as created by the ancient Greek philosophers.

Over time, society has progressed due to the advancement of technology, this period led to a better era and standard of living. The

¹ James E. McLellan, Harold Dorn, “Science and Technology in World History”, John Hopkins University Press,(2006), pg. 3

² *ibid*

³ *ibid*

progress of technology resulted in several industrial revolutions such as the infamous 18th century industrial revolutions of the western powers situated in Europe.⁴ As a direct result, the lives and convenience of society as a whole were impacted and dependent on technology. This can be seen from small conveniences such as lightbulbs, as well as ranging to bigger impacts such from the likes of trains becoming mass transport for the convenience of travel. It is the discourse of humanity to improve their inventions to further progress technology into becoming the innovations we are familiar today.

The understanding of technology can be derived as a means of development of systematic techniques of making and doing things. Its term “technology,” are the combinations of the Greek word *technē*, “art, craft,” with *logos*, derived from “word, speech,” meant in Greece a discourse on arts, both fine and applied.⁵ By the early 20th century, this term has engrossed different kinds of meanings such as, processes, and ideas which are derived from tools and machines, this further progressed into the definition of technology in modern society, which is becoming the means

⁴ “Industrial Revolution.” *History.com*, A&E Television Networks, www.history.com/pics/industrial-revolution/industrial-revolution. Accessed on May 20, 2023

⁵ Buchanan, Robert Angus. “History of Technology.” *Encyclopædia Britannica*,

Encyclopædia Britannica, Inc., www.britannica.com/technology/history-of-technology,

Accessed on May 20, 2023

or an activity where society seeks to change or even manipulate its surroundings.

As spoken by Homer and Hesiod, technology and its definition is derived and can be concluded as such is the means of manual craft or cunning skill.⁶ In its essence, Information can be described as everything from a precise mathematical property mathematical property of communication systems, to being a discrete statement composed of fact or opinion.⁷ Etymology also defines information, “as the act of informing,” derived from “Old French *informacion, enformacion*” and the Latin *informationem* which is defined as outline, concept, or idea taken from the Latin word *Informare* “ to train, instruct, educate; shape, give form to”.⁸ While its greater definition information technology, is a term coined in 1958 by the Harvard Business Review.⁹

The birth of various different kinds of computers, and the desire of interconnectivity between its user and hardware led to the birth of the Internet. One of the most familiar means of accessing information and is widely known today by society. This led to the creation of idea of information technology. As mentioned previously, the internet as a means of technology has become somewhat of a must in the eyes of people in

⁶ Introduction to the History of Technology, “Introduction History of Technology.”, www.sjsu.edu/people/patricia.backer/history/introduction.html, Accessed on May 20,2023

⁷ Byfield, Ted. “A Brief History of Information.” *The Register® - Biting the Hand That Feeds IT*, The Register, 3 Jan. 2007, www.theregister.com/2007/01/02/wtf_is_information_part1, Accessed on May 20,2023

⁸ *Index*, www.etymonline.com/word/information., Accessed on May 20, 2023

⁹ *ibid*

society today, the necessity to access one has become important in trying to obtain, process, access information, due to the means of the internet and its capabilities to provide its users with different kind of platforms of communication, and quick ease of information that can be compiled through various means of data possible.

The conception of the internet was first realized by Leonard Kleinrock, Lawrence G. Roberts at MIT in 1964 which wanted to create a major step in computers communicating between each other, and this was first tested by creating a low speed dial up telephone line which resulted in the first (small) wide area computer network ever built. The result of this experiment was the realization that the time-shared computers could work well together, running programs and retrieving data as necessary on the remote machine, but that the circuit switched telephone system was inadequate for the job. Kleinrock's conviction of the need for packet switching was confirmed.¹⁰

This resulted in 1967 towards the creation of ARPANET which would become the predecessor of the internet under the initiative of the US government DARPA program. ARPANET is the development of a computer network concept which are interconnected between each other. Under this basis, the familiar web browsers we know today such as Mozilla, Google Chrome, Safari, Firefox, and Internet Explorer are born. This

¹⁰ Leiner, Barry M, "Brief History of the Internet." *Internet Society*, 14 Aug. 2020, www.internetsociety.org/internet/history-internet/brief-history-internet/.

technology is now known as the easiest form of accessing the internet, as well as providing us with the ability to view images and line of text, based on the mosaic web browser concept.¹¹

Such evolution of the internet is still considered to be evolving today correlating with technology, its capabilities and limitations are only subjected towards the innovation of people, in regards of establishing a thriving society that can benefit from the use of day-to-day activities from the web. Clear examples would be storing data and information, commerce, media, social media, online web services, and of course business purposes that may benefit the users and companies alike. The evolution of the internet has also led to the development of technology in Indonesia. Particularly leading Indonesia to become one of the fastest growing digital economies in Southeast Asia. With this opportunity the use of digital technology to promote financial services has also grown.¹²

Financial technology, or Fintech, is a rapidly growing industry in Indonesia. Fintech companies use technology to provide financial services such as payments, lending, and investing to customers. This innovative approach to financial services has allowed many Indonesians to access financial services that were previously out of reach. Fintech has also improved financial inclusion in Indonesia by providing access to financial

¹¹ "Mosaic Browser." *Mosaic Browser - History of the NCSA Mosaic Internet Web Browser*, history-computer.com/Internet/Conquering/Mosaic.html.

¹² World Bank Group. (2021, August 2). *Ensuring a more inclusive future for Indonesia through Digital Technologies*. World Bank., from <https://www.worldbank.org/en/news/press-release/2021/07/28/ensuring-a-more-inclusive-future-for-indonesia-through-digital-technologies/>, Accessed March 20, 2023

services for those who were previously underserved by traditional financial institutions.¹³

The growth of Fintech in Indonesia has been impressive in recent years. Indonesia has a large population with a high percentage of smartphone users, making it an attractive market for Fintech companies. According to a report by Google, Temasek, and Bain & Company, Indonesia's Fintech industry is projected to reach a value of \$100 billion by 2025. The report also found that digital payments and digital lending are the two largest segments of Fintech in Indonesia.¹⁴

Investors of different generations have different preferences and tendencies when it comes to investing. Millennial and post-millennial investors, are increasingly turning to Mobile apps to manage their investments. This trend can be attributed to their familiarity with technology and the convenience of accessing their portfolio at any time and from anywhere.¹⁵ According to a survey by Charles Schwab, 71% of millennials and 60% of Gen Z investors prefer to use mobile apps for managing their investments. This preference for mobile apps is driven by the ease of use and accessibility they offer. Mobile apps also provide features such as real-

¹³ What is fintech? The ultimate guide to financial technology" by CB Insights, <https://www.cbinsights.com/research/what-is-fintech/>, accessed on March 18, 2023.

¹⁴ *Indonesia's Gojek Reportedly Lands \$1.2B For Expansion*, <https://news.crunchbase.com/startups/indonesias-gojek-reportedly-lands-1-2b-for-expansion/>, Accessed on March 28, 2023.

¹⁵ *Millennial and Gen Z Investing Habits "What Are They, and What Can We Learn From Them?"* by Apex Fintech Solutions, <https://apexfintechsolutions.com/resource/millennial-and-genz-investing-habits/>, Accessed on March 28, 2023.

time stock prices and news updates that can be especially appealing to younger investors who value being up-to-date with market trends.¹⁶

However, despite the growing popularity of mobile apps, some investors still prefer to use the web for managing their investments. This preference can be attributed to a desire for more detailed information and analysis that may not be available on a mobile app. Additionally, some investors may feel more secure managing their investments on a computer.

Overall, the choice between using a mobile app or the web for investing ultimately comes down to personal preference. Both options offer unique advantages and can provide investors with the tools they need to make informed decisions about their portfolios. As technology continues to evolve, it will be interesting to see how these preferences continue to shift and impact the investing landscape.¹⁷

Recognizing the potential of Fintech, the Indonesian Government has taken measures to support its development. In 2016, the Indonesian Financial Services Authority (OJK) established a regulatory framework for Fintech companies, aimed at providing a clear and predictable regulatory environment while ensuring consumer protection. The government has also initiated initiatives to promote financial literacy and encourage the adoption of digital financial services. For instance, in 2018, the government launched

¹⁶ <https://www.aboutschwab.com/schwab-digital-investing-and-technology-survey-2021m>, Accessed on March 19, 2023.

¹⁷ Brown, Nerissa C, Elliott, W. Brooke, Wermers, Russ, White Roger M. "News or noise: Mobile internet technology and stock market activity" University of Cologne, Centre for Financial Research (CFR), Cologne Abstract: 2021

a digital payment program called "Gerakan Nasional Non-Tunai" (GNNT)¹⁸ to enhance awareness and adoption of digital payment services among Indonesians.

Due to a resurgence of internet usage in Indonesia, the need for regulation arose as a byproduct of criminal violations and activities being conducted online. This revelation led to the enactment of Indonesia's first law regarding the internet and electronic transaction under UU ITE (*Informasi dan Teknologi Elektronik*) which would serve as the basis of conduct. With the creation of such law, any information, electronic document, and such can and may be used as legally binding evidence under the law. The primary context and theory used for the foundation of UU ITE is a hybrid form of a substantive and instrumental theory, which is taken from the understanding that technology has the capability of being neutral, in other words it is the action of man that caused the damages undertaken through technology, while its substantive counterpart argues that technology itself is not neutral, and that men is dictated by technology after.¹⁹

As described by Head of Public Relations Bureau of Ministry of Telecommunications and Information Mr. Ferdinandus Setu, the drafting of

¹⁸Bank Indonesia "Elektronifikasi, Apa itu Elektronifikasi". [https://www.bi.go.id/id/fungsi-utama/sistem-pembayaran/ritel/elektronifikasi/default.aspx#:~:text=Bank%20Indonesia%20\(BI\)%20telah%20mencanangkan,GNNT%20juga%20diharapkan%20mampu%20meminimalisasi/](https://www.bi.go.id/id/fungsi-utama/sistem-pembayaran/ritel/elektronifikasi/default.aspx#:~:text=Bank%20Indonesia%20(BI)%20telah%20mencanangkan,GNNT%20juga%20diharapkan%20mampu%20meminimalisasi/), Accessed on March 18, 2022.

¹⁹ Rizkinaswara, L. "Menilik Sejarah UU ite Dalam Tok-Tok Kominfo #13". Ditjen Aptika, from <https://aptika.kominfo.go.id/2019/02/menilik-sejarah-uu-ite-dalam-tok-tok-kominfo-13/>, Retrieved March 21, 2023

the UU ITE, consists of two legislations which were still being drafted (RUU *Tindakan Pidana Teknologi informasi*, and RUU *E-Commerce*) which were at that time, being discussed in the Indonesian Parliament.²⁰ With the development of this law set into place, the financial technology landscape evolved in Indonesia. Utilizing the law and the growing number of Indonesians using financial technology applications. From such a result, prominent super investment applications were born and grew rapidly in the country.

PT Ajaib Sekuritas Asia (Ajaib App) is a prominent financial technology application as described previously, is a company based in Indonesia that offers investment services through their mobile app. The Ajaib app allows users to invest in various types of investment products such as stocks, mutual funds, and exchange-traded funds. The Ajaib app is designed to be user-friendly and quite accessible to both experienced and novice investors. The app has an easy-to-use interface platform which includes, educational resources & training, while also giving personalized investment recommendations based on the user's risk tolerance and investment goals.²¹ In addition to investment services, Ajaib also offers various financial management tools such as budgeting, expense tracking,

²⁰ *ibid*

²¹ *Halaman Tentang Kami - Ajaib*. (n.d.). Ajaib. <https://ajaib.co.id/tentang-kami/>, accessed on March 17, 2023

and savings calculations. The Ajaib app is fairly accessible on major mobile platforms and is free to download.

However, there are still potential loopholes and areas where Ajaib app and other fintech companies operating in Indonesia need to be vigilant in ensuring compliance with the law. One potential area of concern is data protection and privacy. UU ITE requires companies to protect the privacy and security of user data, but there have been instances of data breaches and other violations by some fintech companies.

Another potential loophole that needs to be addressed is the issue of financial inclusion. While Ajaib and other fintech companies have made investing more accessible to the general public in Indonesia, there are still many Indonesians who lack access to basic financial services, including the awareness of the terms and services provided by the application for users to comply and accept.

Therefore, potential gaps and ambiguities in its terms and services may need to be addressed to ensure full compliance with current applicable regulations. Additionally, there may be ongoing changes in regulations that may require Ajaib to update its terms and services accordingly. With this issue in mind the importance of existing and future regulations that ensures financial tech applications such as Ajaib comply and operate within the bounds of the law provides legal certainty for both the operating firm and their users. Under the opinion of the author, only through the compliance and exploration of existing regulations followed by the terms and conditions

placed upon by the application, will the consumer be protected under the safeguard of the law, as well as misuse of personal information that has run rampant in recent years. If such financial tech applications comply with current regulations, they will be able to demonstrate their full commitment towards the responsibility of business practices under their sector. The Author is interested in exploring and dissecting the current terms and conditions that is applied by the application and whether it complies with current regulations under the law, and provide solutions under in this legal writing titled, **“RESPONSIBILITY OF PT AJAIB SEKURITAS ASIA INDONESIA FOR ELECTRONIC USER DATA PROTECTION IN THE CASE OF SYSTEM ERROR UNDER INDONESIAN LAW”**.

1.2 Formulation of Issue

With the growing number of investment apps such as Ajaib app continues to expand in Indonesia it is vital to oversee its compliance and in perpetuity its terms and conditions. As a form of course, this thesis will analyze the following issues that arise such as:

- 1) How does Ajaib In the case of a system error ensure that its terms and conditions align with UU ITE and implementing its implementing regulations?
- 2) How does Ajaib validate its adherence towards their terms and conditions under OJK Regulations. In case of system error?

1.3 Objective of Research

Despite this thesis being a program, which is mandatory and contributes towards the accomplishment of a student of law studies to obtain a bachelor's degree in law, this thesis can become a source of benchmark and reference of study for other people to find helpful and meaningful, especially for students that might use such works for a basis of reference and study in the future.

Firstly, the core purpose of this thesis is to analyze the application of PT Ajaib Terms and Services and compliance with the current laws regarding electronic data protection in its suitability, benefit, and specific purpose. Secondly in order to avoid and prevent cybercrime This research will identify and breakdown the technical regulations that are put into forth as requirements serving as preventive measure to avoid abuse of data, as well as the step by step process for service providers to prevent such acts to be committed, in order for it to become beneficial use from both the users and electronic service providers currently situated in Indonesia. to uphold security and stability of information and private data going forward in Indonesia.

1.4 Research Benefits

The main purpose of this research can be fairly divided into two sections, consisting of its theoretical benefits and practical benefits.

The benefit that is to be obtained from this thesis is to understand the theoretical and legal understanding surrounding the Indonesian Law regarding electronic data, and electronic data protection. Specifically, on how it is regulated in investment applications such as Ajaib and its relating counterparts.

For its practical purpose, the study of this thesis may prove guiding reference for both students and scholars, as well as government bodies or institutions in terms of future development of terms and services in Indonesia. This thesis also contributes to the general studies of cyber law and to help raise awareness on the importance of being protected under cyber security laws in Indonesia.

1.5 Framework of Writing

Chapter I: Introduction

This chapter will focus on the general background of this thesis, formulation of issue, research purpose, theoretical, and the practical benefits, as well as the framework of writing this thesis.

Chapter II: Literature Review

This chapter will focus on research primarily on legal terms and understanding of UU ITE, Law no. 4 year 2023, and POJK followed by interpretations and opinion of scholars regarding the topic of the thesis might also be included in this segment.

Chapter III: Research Methods

The third chapter of this thesis elaborates on the various legal research methods employed during its writing. This encompasses the type of research conducted, the procedures followed for gathering research

materials, the approach utilized for analysis, and the obstacles encountered along with their corresponding solutions during the drafting process.

Chapter IV: Discussion and Analysis

This chapter focuses on answering and analyzing the formulation of issues on this thesis, which consists of the application PT Ajaib terms and services and its application with current regulating laws under UU ITE. Second, the potential issues that may arise if the technical regulations are not put into place to safeguard current users of Ajaib app, based on the implementation of existing terms and agreements.

Chapter V: Conclusion and Recommendation

The final part of this thesis will conclude the core analysis of this thesis, followed by the recommendations created by the author in order to ease the existing problem within the terms and conditions of PT Ajaib application.