Legal Aspects of Artificial Intelligence based on Legislation Regulations in Indonesia

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Abstract

A legal relationship is a relationship between two or more parties (legal subjects) that have legal consequences (giving rise to rights and obligations) and are regulated by law. In this case, the right is the authority or role that exists in a person (the holder) to act on something that is the object of that right to other people. While the obligation is something that must be fulfilled or carried out by a person to obtain his rights or because he has obtained his rights in a legal relationship. Legal object is something that is useful, valuable, valuable for legal subjects and can be used as the subject of legal relations. While legal subjects are everything that can support their rights and obligations or have legal authority (rechtsbevoegdheid). In commercial activities, transactions have a very important role. In general, the meaning of the transaction is often reduced to a sale and purchase agreement between the parties who agree to it, even though in a juridical perspective, the terminology of the transaction is basically the existence of an engagement or legal relationship that occurs between the parties. The juridical meaning of the transaction is basically more emphasized on the material aspects of the legal relationship agreed upon by the parties, not the formal legal action. Therefore, the existence of legal provisions regarding engagements remains binding despite changes in media and changes in transaction procedures. Civil relations between the parties in electronic transactions are contained in electronic documents and are binding on the parties. An electronic contract is an agreement between the parties made through an electronic system. In this case the electronic document must be understood as a form of agreement of the parties, which is not only formulated in the form of an electronic agreement but also in the features provided, such as "I agree, I accept" as a form of agreement / agreement.

Keywords: Legal Aspects; Law No. 11 of 2008; Information and Electronic Transactions

1. Introduction

Technological advances that are able to adopt human thinking processes and ways are Artificial Intelligence technology or artificial intelligence. Artificial intelligence can be defined as a knowledge mechanism that emphasizes the intelligence of the formation and assessment of the tools that make that mechanism, and make computers think intelligently. Artificial intelligence technology is studied in various fields such as robotics, computer vision, artificial neural networks, natural language processing,
speech recognition and expert systems.\(^1\) Another definition of artificial intelligence is the study of how to make computers do things like humans do. Artificial intelligence is also an area of research, applications and instructions related to computer programming to do things, in the view of humans it is intelligent. One of the artificial intelligence technologies is an expert system which is a computer program that can imitate the thought process and expert knowledge to solve a specific problem.\(^2\)

Article 28F of the Constitution of the Republic of Indonesia states that: Everyone has the right to communicate and obtain information to develop their personal and social environment, and has the right to seek, obtain, possess, store, process, and convey information using all available channels. This makes the basis for everyone to be able to communicate and transact using Artificial Intelligence.

Technological change and its development are global changes that have a significant impact in a country. Likewise in Indonesia, technological developments have a major impact on people's lives. This development will fundamentally change society, both in terms of behavior, patterns of social relations, and ways of working. Indonesia as a state of law certainly regulates the lives of its people with applicable laws. The current law is expected to be the basis for solving all existing problems. Current developments present the fact that technology has taken a very important role in people's lives. In the end, it must be acknowledged that technology will determine the sustainability of human life, especially the Indonesian state which is currently facing the industrial revolution 4.0. The study mentions that the term industrial revolution 4.0 first appeared in 2011, when the German government introduced a technology utilization strategy called industry 4.0.\(^3\)

Behind the development of industry 4.0, there is a technological development that is an activator for the passage of this era, namely artificial intelligence (AI) or commonly referred to as artificial intelligence. The shift mechanism in the manufacturing process will be completed in the work of smart machines that interact with each other with the user.\(^4\)

Transactions carried out electronically are basically engagements or legal relationships that are carried out electronically by combining a computer-based electronic system network with a communication system, which is further facilitated by the existence of a global computer network or the internet (see Article 1 number 2 of the ITE Law).\(^5\)

A legal relationship is a relationship between two or more parties (legal subjects) that have legal consequences (giving rise to rights and obligations) and are regulated by law. In this case, the right is the authority or role that exists in a person (the holder) to act on something that is the object of that right to other people. While the obligation is something that must be fulfilled or carried out by a person to obtain his rights or because he has obtained his rights in a legal relationship. Legal object is something that is useful, valuable, valuable for legal subjects and can be used as the subject of legal relations. While legal subjects are everything that can support their rights and obligations or have legal authority (rechtsbevoegdheid). In commercial activities, transactions have a very important role. In general, the meaning of the transaction is often reduced to a sale and purchase agreement between the parties who

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\(^4\) Reza Yogaswara, “Artificial Intelligence Sebagai Penggerak Industri 4.0 Dan Tantangannya Bagi Sektor Pemerintah Dan Swasta,” Jurnal Masyarakat Telematika dan Informasi 10, no. 1, 2019.

\(^5\) Transaksi Elektronik adalah perbuatan hukum yang dilakukan dengan menggunakan komputer, komputer jaringan, dan/atau media elektronik lainnya.
agree to it, even though in a juridical perspective, the terminology of the transaction is basically the existence of an engagement or legal relationship that occurs between the parties. The juridical meaning of the transaction is basically more emphasized on the material aspects of the legal relationship agreed upon by the parties, not the formal legal action. Therefore, the existence of legal provisions regarding engagements remains binding even though there are changes in media and changes in transaction procedures.

Civil relations between the parties in electronic transactions are contained in electronic documents and are binding on the parties. An electronic contract is an agreement of the parties made through an electronic system. In this case the electronic document must be understood as a form of agreement of the parties, which is not only formulated in the form of an electronic agreement but also in the features provided, such as "I agree, I accept" as a form of agreement / agreement.

The use of information technology for the banking industry in the innovation of bank service products is also overshadowed by the potential risk of system failure and/or the risk of electronic crime (cybercrime) carried out by irresponsible people. System failure can be caused by a system failure (such as a server down), and on a large scale it can be caused by a natural disaster. Meanwhile, cybercrime that occurs in the banking industry in Indonesia tends to increase in Indonesia, such as the occurrence of identity theft, carding, hacking, cracking, phishing, viruses, cybersquatting, ATM fraud. Based on Bank Indonesia data, there has been a significant increase in E-Banking fraud in the last 2 years. In 2006 there were 57,766 report volumes with a value of Rp. 36,500,000,000,- (thirty-six trillion five hundred billion rupiah), while in 2007 there were 532,533 report volumes with a value of Rp. 45,700,000,000,000,- (forty five trillion seven hundred billion rupiah).

In Indonesia, the regulation regarding Artificial Intelligence has not been clearly spelled out in the legislation, but at least it has been stated in Law no. 11 of 2008 which has been amended by Law no. 19 of 2016 concerning Information and Electronic Transactions.

Based on the introduction and background, the author is interested in conducting research as outlined in the form of a Thesis Proposal with the title: **LEGAL ASPECTS OF ARTIFICIAL INTELLIGENCE BASED ON LEGISLATION REGULATIONS IN INDONESIA**.

### 2. Research Method

The approach used in writing this thesis uses a normative juridical approach which is based on a statute approach and a relevant conceptual approach.

### 3. Results and Discussion

#### a. Definition of Legal Protection

The presence of law in society is to integrate and coordinate interests that usually conflict with one another. Therefore, "the law must be able to integrate it so that conflicts of interest can be reduced to a minimum".

Linguistically, the word protection in English is called protection. The term protection according to the KBBI can be equated with the term protection, which means the process or act of protecting, while according to Black's Law Dictionary, protection is the act of protecting.

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6 Pasal 1 angka 17 Undang-Undang Informasi dan Transaksi Elektronik.  
7 Data DASP, lihat website Bank Indonesia (www.bi.go.id).  
In general, protection means protecting something from dangerous things, something that can be in the form of interests or objects or goods. In addition, protection also contains the meaning of protection given by someone to someone who is weaker.9

Thus, legal protection can be interpreted as all government efforts to ensure legal certainty to provide protection to its citizens so that their rights as citizens are not violated, and those who violate them will be subject to sanctions according to applicable regulations.

The definition of protection is a place of refuge, things (deeds and so on) protect. In the KBBI, what is meant by protection is the method, process, and act of protecting. While law is a regulation made by the government or which data applies to everyone in society (the state). The definition of legal protection is a protection given to legal subjects in the form of legal instruments both preventive and repressive, both written and unwritten.10 In other words, legal protection is an illustration of the function of law, namely the concept where the law can provide justice, order, certainty, benefit and peace.

The opinions quoted from several experts regarding legal protection are as follows:

1. According to Satjito Rahardjo, legal protection is an effort to protect a person's interests by allocating a Human Rights power to him to act in the context of his interests.
2. According to Setiono, legal protection is an act or effort to protect the public from arbitrary actions by the authorities that are not in accordance with the rule of law, to create order and peace so as to enable humans to enjoy their dignity as human beings.
3. According to Muchsin, legal protection is an activity to protect individuals by harmonizing the relationship of values or rules that are manifested in attitudes and actions in creating order in the social life between fellow human beings.
4. According to Hetty Hasanah, legal protection is all efforts that can guarantee legal certainty, so that it can provide legal protection to the parties concerned or who take legal action.

According to Law Number 40 of 1999 concerning the Press, that legal protection is a guarantee of the protection of the government and or society to citizens in carrying out their functions, rights, obligations, and roles in accordance with the provisions of the applicable laws and regulations.11 In Law Number 23 of 2004 concerning the Elimination of Domestic Violence, legal protection is all efforts aimed at providing a sense of security to victims carried out by families, advocates, social institutions, police, prosecutors, courts, or other parties, either temporarily or based on court order.12

While the legal protection contained in Government Regulation no. 2 of 2002 concerning Procedures for the Protection of Victims and Witnesses in Serious Human Rights Violations, legal protection is a form of service that must be carried out by law enforcement officers or security forces to provide a sense of security both physically and mentally, to victims and witnesses, from threats, harassment, terror, and violence from any party, which is given at the stage of investigation, investigation, prosecution, and or examination in court.13

A protection can be said to be legal protection if it contains the following elements:

1. There is protection from the government for its citizens.
2. Guarantee of legal certainty.

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12 Undang Undang Nomor 23 Tahun 2004 tentang Penghapusan Kekerasan Dalam Rumah Tangga
13 Peraturan Pemerintah No. 2 Tahun 2002. Tatacara Perlindungan Terhadap Korban dan Saksi
3. Relates to the rights of citizens.
4. There are penalties for those who violate it.

The essence of legal protection for investors is a protection that guarantees for an investor that he will be able to invest his capital in a fair situation to parties related to the law, the community, and other parties, especially in terms of getting access to information regarding market situation, political situation and society, assets managed by investors, laws and regulations, and so on.

b. Forms of Legal Protection

According to R. La Porta in the Journal of Financial Economics, the form of legal protection provided by a country has two characteristics, namely preventive and punishment. The most obvious form of legal protection is the existence of law enforcement institutions such as courts, prosecutors, police, and other non-litigation dispute resolution institutions.\(^\text{14}\) This is in line with the understanding of law according to Soedjono Dirdjosisworo which states that law has various meanings in society and one of the most obvious of the notions of law is the existence of law enforcement institutions. Legal protection is closely related to the aspect of justice. According to Sudirman Kartohadiprodjo, essentially the purpose of law is to achieve justice. Therefore, the existence of legal protection is one medium to uphold justice.\(^\text{15}\)

Law enforcement in the form of legal protection in economic activities, especially investment, cannot be separated from the legal aspects of the company, especially regarding limited liability companies because legal protection in investment involves several business actors, including investors, directors, commissioners, permit givers and power holders, and parties supporting the occurrence of investment activities such as notaries where the parties are dominated by legal subjects in the form of limited liability companies.

There are two legal subjects in civil law, namely individual legal subjects and legal subjects in the form of legal entities. The legal subject of an individual or natuurlijkepersoon is a person or human who has been deemed competent according to law. People as legal subjects are supporters or bearers of rights from the time they are born alive until they die.

c. Principles of Responsibility

Edmon Makarim in his book Introduction to the Law of Telematics put forward several principles of responsibility for business actors in law which are distinguished as follows:\(^\text{16}\)

1. The principle of liability based on fault (fault liability/liability based on fault) This principle states that a person can only be held legally responsible if there is an element of wrongdoing. This principle is reflected in the provisions of Article 1365, Article 1366 and Article 1367 of the Civil Code. Article 1365 of the Civil Code requires that there are 4 (four) main elements to be held legally responsible for unlawful acts, namely the existence of an act, the element of error, the loss suffered, and a causal relationship between the error and the loss.

A broader understanding of unlawful acts can be seen in the jurisprudence of Arrest Hoge Raad in the Cohen-Lindenbaum case, namely an act against (onechmatige daad) as an act or omission that is contrary to the rights of others, or contrary to decency and necessity in social life. Thus there are 4 (four) elements of an act categorized as an unlawful act, namely:

\(^{15}\) Ahmad Miru, 2014. Prinsip-Priip Perlindungan Hukum bagi Konsumen Indonesia, Raja Grafindo Persada, Jakarta, hlm 63.
a. the act is contrary to the rights of others;

b. contrary to one's own legal obligations;

c. contrary to decency;

d. contrary to the necessity that must be heeded in the association of society.

With regard to this principle, a question will arise regarding the "legal subject of the wrongdoer" (Article 1367 of the Civil Code). In legal doctrine, there are vicarious liability and corporate liability.

Vicarious liability is responsibility for the mistakes of people who are under the supervision of the employer. If the person is transferred to the control of another party, then the responsibility also shifts to the other party. Meanwhile, corporate liability emphasizes the responsibility of the institution/corporation towards the employees it employs. For example, the legal relationship between a customer bank, all responsibilities for the work of bank employees carried out at the bank are the responsibility of the bank.

2. The Presumption of Liability Principle
This principle states that the defendant is always held responsible until he can prove his innocence (reverse proof). Article 22 of the Consumer Protection Law confirms that the burden of proof (there is no fault) lies with business actors in criminal cases of violating Article 19 paragraph (4), Article 20, and Article 21 of the PK Law.

3. The Presumption of Not Always Responsible
This principle is the opposite of the second principle and is only known in a very limited scope of transactions which in common sense can be justified. For example, someone who drinks water in the river without cooking it first, if he is sick, he cannot sue the factory located around the river. He should have boiled the water first.

4. The principle of strict liability.
This principle stipulates that an action can be punished on the basis of harmful conduct (harmful conduct) without questioning whether there was intention or negligence. This principle emphasizes the causal relationship between the responsible subject and the mistake he made, taking into account the existence of force majeure as a factor that can escape responsibility. The principle of absolute responsibility in consumer protection law is applied to producers who market defective products so that they can harm consumers (product liability).

5. Absolute Liability (strict liability).
This principle is often used by business actors to limit the burden of responsibility that should be borne by them, which is generally known as the inclusion of an eco-generation clause in the standard agreement they make. Thus, it can be concluded that the forms of responsibility of business actors contained in the UUPK are as

d. Artificial Intelligence

Artificial intelligence, hereinafter referred to as Artificial Intelligence (AI) is a study of how to make computers do things that humans can currently do better. The number of complex problems faced by humans today makes it difficult for humans and even computers to solve them.\(^{17}\)

The need for competitive advantages in various strategic sectors has historically been the driving force for the development of new, more sophisticated and intelligent and cost-effective mechanisms in the production process and in the provision of services. In this case, and since the beginning of the industrialization era, from time to time, leaps and bounds in technological trends occurred and revolutionized the concept of production and service provision, this is what is known as the industrial

revolution. The first industrial revolution took place in the field of mechanization and steam engines, the second industrial revolution was based on the intensive use of electrical energy and mass production, and the third industrial revolution was founded in the IT environment and the widespread domain of digitization. Industry 4.0 is closely related to creative innovation. In recent decades, innovation adds compilation through mobile applications, cloud computing, and big data which together can build a perfect symbiosis, create new concepts for industrialization processes, and shift market models to a new era of competition and product differentiation.\footnote{Geiger, R., & Sá, C.. Tapping the Riches of Science: Universities and the Promise of Economic Growth. Cambridge, MA: Harvard. 2013.}

Industry 4.0 represents a shift towards an innovation-driven economy with science, data and IoT as centralized concepts. This will influence the structure of today's models, markets, and industrial-age business processes and pave the way for a new era of digitalization, "smarter" networked production systems and interconnected business processes. There are three points that represent the industrial revolution 4.0.\footnote{Almada-Lobo, F. The Industry 4.0 revolution and the future of manufacturing execution systems (MES). Journal of Innovation Management, 3, 16-21. 2016.}

**Conclusion**

The use of information technology for the banking industry in the innovation of bank service products is also overshadowed by the potential risk of system failure and/or the risk of electronic crime (cybercrime) carried out by irresponsible people. System failure can be caused by a system failure (such as a server down), and on a large scale it can be caused by a natural disaster. Meanwhile, cybercrime that occurs in the banking industry in Indonesia tends to increase in Indonesia, such as the occurrence of identity theft, carding, hacking, cracking, phishing, viruses, cybersquatting, ATM fraud. Based on Bank Indonesia data, there has been a significant increase in E-Banking fraud in the last 2 years. In 2006 there were 57,766 report volumes with a value of Rp. 36,500,000,000,- (thirty-six trillion five hundred billion rupiah), while in 2007 there were 532,533 report volumes with a value of Rp. 45,700,000,000,000,- (forty five trillion seven hundred billion rupiah).

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