

Legal Reform to Overcome Legal Lags in the Development of Science and Technology

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Abstract. One of the obstacles is that laws often fail to adapt and respond quickly to rapid technological developments, partly due to the slow creation of new laws. Therefore, this paper discusses how to address technological advancements with the lag in law creation. This research uses a normative juridical approach. The research results show that technological advancements trigger legal reforms because changes lead to legal voids if new laws are not created. The law must synergize with public policy, considering that in its formation and enforcement, it cannot be separated. The law must be formed to align with the nation's identity and ideology and provide direction if there is foreign socio-cultural intervention or impact that could damage the national socio-cultural system. Therefore, the government, as a regulator, is required to continuously anticipate these technological developments and incorporate them into progressive regulations, i.e., regulations that can respond to and provide direction for technological developments. The government needs to have an integrated legislative body focused on preparing concepts and drafting laws as a partner to the parliament. The existence of an integrated body comprising various Ministry/Agency elements permanently, which meets the qualifications for the formation of quality laws, is important to realize.

Keywords: Legal Reform, Lagging Laws, Science and Technology Developments

1 Introduction

Science and Technology (IPTEK) is an abbreviation for *Ilmu Pengetahuan dan Teknologi*. It is undeniable that technological advancement is something we cannot avoid in life, as technological progress will go hand in hand with scientific progress. Innovation after innovation is created to provide positive benefits and ease in performing various activities. Although initially, these innovations bring many positive benefits, they also have the potential to be used for negative purposes.[1] This is something that must be fully recognized and approached wisely. Various new technology concepts are continuously being offered and are progressing at an increasingly rapid pace, almost unstoppable, as a result of humanity's ability to discover and offer various kinds of evolving, increasingly complex, and diverse technologies. On one hand, every aspect of society is regulated by law; on the other hand, the use of technology in society requires the law to adapt to changes that occur as a result of technological advancements.[2]

The world is undergoing a universal transformation triggered by the massive development of technology. All countries are racing and transforming. One of the obstacles is that the law often lags in adapting to and responding to such rapid technological developments, partly due to the slow creation of new rules. Therefore, the author will address the issue of how legal reform can overcome the lag in the law regarding the advancement of science and technology. The research method used in this writing is normative juridical, a normative legal research method that uses secondary data or library materials.[3]

2 Literature Review

2.1 Legal Resource

The essence of a source of law is a place where one can find and extract the law, or it can be used to mean the origin of positive law or the place where positive law is found. According to Sudikno Mertokusumo, the term source of law is often used with several meanings, namely:

1. As a legal principle, as something that is the beginning of law, for example, the will of God, human reason, the spirit of the nation, and so on.
2. Referring to previous laws that provide materials for the laws currently in force, such as French law, Roman law, and Islamic law.
3. As a source of validity that formally gives binding force to legal regulations (authorities, society).
4. As a source where we can recognize the law, for example, from documents such as laws, lontara (traditional manuscripts), inscribed stones, and so on.
5. As a source of the creation of law, which is the source that generates law.[4]

Bachsan Mustafa writes that sources of law are divided into material sources of law and formal sources of law. A material source of law refers to the legal awareness of society, the living legal consciousness within the community that is considered appropriate, as the law is established precisely to achieve orderly and peaceful human interaction. In contrast, a formal source of law is the place where we can find and recognize the law, which consists of laws in a broad sense (the Constitution and statutes), customary law and practices, jurisprudence, treaties, and doctrines.[5]

According to Moh Kusnardi, as cited by Andi Nuzul, a material source of law is a source that determines the content of the law. Meanwhile, a formal source of law is the place or source from which a regulation obtains its legal force; this relates to the form or manner that formally enforces the legal regulation.[4]

The material source of law in our country is Pancasila. Pancasila serves as the material source of law, meaning it is the sole basis for deriving the material or content of both existing and future laws. This is understood because Article 2 of Law Number 12 of 2011 concerning the Formation of Legislation states that Pancasila is the source of all sources of state law.

The formal sources of law can be found in Article 7 of Law Number 12 of 2011 concerning the Formation of Legislation, which hierarchically lists them as follows:

1. The 1945 Constitution of the Republic of Indonesia.
2. Decrees of the People's Consultative Assembly.
3. Laws/Government Regulations instead of Laws.
4. Government Regulations.
5. Presidential Regulations.
6. Provincial Regulations.
7. Regency/Municipal Regulations.

The legal force of these legislative regulations corresponds to their hierarchy, with the highest being the most authoritative.

2.2 Formation of Legislation

Legislation is a positive law that is created, established, or formed by authorized officials within an authorized office environment or based on specific legislation. It is in written form

and contains general conduct rules that are applicable or binding, with a specific format or form, through certain mechanisms or procedures stipulated in the legislation. Legislation includes all forms of legislative regulations made at both the national and regional levels of government.[6]

In Article (1) point 1 of Law Number 12 of 2011, explained that the formation of legislation is the process of making laws and regulations, which includes stages such as planning, drafting, discussion, approval or determination, and promulgation.

Constitutionally, HAS Natabaya, as quoted by Mukhlis Taib, states that every formation of legislation must obtain legitimacy from the 1945 Constitution of the Republic of Indonesia in the form of formal and material constitutional foundations. The formal constitutional foundation is intended to provide procedural legitimacy for the formation of such legislation. The material foundation is intended to signify that the legislation formed is an elaboration of the articles of the 1945 Constitution, which are also included in the legal basis "considering" a piece of legislation to be formed.[6] The legal policy chosen by the lawmakers and regulations under the law must align with the 1945 Constitution of the Republic of Indonesia and Law Number 12 of 2011, which is based on Pancasila as the source of all sources of state law.[7]

3 Result and Discussion

The advancement of science and technology has resulted in a digital transformation that has permeated every corner of the globe. Digital transformation began with the process of digitalization, facilitated by connectivity that links people to individuals, and people to objects and machines, unhindered by space and time. Fixed broadband connectivity and mobile cellular networks have accelerated this transformation process, further supported by digital platforms that encourage users to transition from the physical to the cyber world. The advent of smartphones has led to a massive and unpredictable development, impacting not only the digital economy but also social relationships between individuals and communities. Big data has become extremely important and valuable, often referred to as the new oil in the economy and social sector. Consequently, the government, as a regulator, is required to continuously anticipate technological developments and incorporate them into progressive regulations—regulations that can respond to and guide the development of technology in a way that productively benefits the country and society.[8]

The development of technology triggers legal reform due to changes that create legal voids if the laws are not established. Legal reform can involve creating new laws or revising existing laws to align with the changes that emerged.

According to Andi Nuzul, the term legal reform is adopted from the theory that "law is a tool for changing society," or "law as a tool of social engineering." In Indonesia, this concept was popularized by Mochtar Kusumaatmaja, who stated that the role of law in development is to ensure that changes occur in an orderly manner, through legal procedures, whether in the form of legislation or judicial decisions.[4]

Legal reform is necessary because the performance of law in society often lags behind the events it is meant to regulate, as human interests evolve with the times. Therefore, legal reform is important and necessary to adapt to the developments and legal awareness of society and human rights. This condition demonstrates the need for responsive laws that align with the existing developments and awareness within society.

According to Faisal Santiago, responsive law is essentially a legal system that places social reality as a primary foundation in the development of law. The need for responsive law

arises from the fact that law, which solely revolves around legal logic, tends to be inconsistent with the legal aspirations of society. Such a law is also unable to meet the ever-growing needs of society.[9]

In legal reform, there is an effort to build a national law in accordance with the desired ideals. The legal development outlined by the Broad Outlines of State Policy (GBHN) in 1993 involves the development of a national legal order within a broad legal system, where the legal system consists of several subsystems as components that are interconnected and interact with each other. Arief Sidharta, quoting Mochtar Kusumaatmaja, states that the components of the legal system consist of:[10]

- a. Principles and norms.
- b. Legal institutions.
- c. Processes of realizing norms in reality.

In the formation of law, in addition to legal factors, non-legal factors such as technology, economy, and socio-cultural must also be considered. Principles, as one of the elements of legal terminology, play a role in guiding the law itself, Pancasila as the state ideology, as the fundamental norm, followed by general legal principles that align with the specific legal substance being regulated and must not conflict with the state ideology.[11]

The increasing importance of technology in today's era for human life and its influence on human life and the environment make this factor unavoidable. It means that the law-making process must be able to accommodate all aspects closely related to the field or issues to be regulated in that legislation.[12]

Human Resources involved in legal fields will feel the impact of technological advancements. The variety of professions and jobs in the legal field, such as government roles in regulatory formation and legislative processes, must work flexibly and adaptively in the digital age. The process of drafting various regulations requiring legal, bureaucratic, and political procedures, which are quite lengthy and identified by prioritizing procedures and sectoral egos rather than the substance of the law itself, needs to be reorganized. This is because digital transformation requires a rapid response with the establishment of progressive and pragmatic regulations to facilitate transformation.

Legal drafting institutions must function to generate quality legal concepts that integrate the thoughts of experts from various fields, both legal and non-legal, followed by constitutional processes into laws and their implementing regulations. In this case, the government needs to have an integrated legislative institution focused on preparing concepts and bill drafts as parliamentary partners. The discussion of various bill drafts often involves multiple ministries/agencies whose elements can change at any time and are not permanent, which can lead to lengthy and ineffective discussions, affecting the quality of the legal substance itself. The existence of an integrated institution filled with various permanent Ministry/Agency elements that qualify for the formation of quality laws is essential for realization.

The law must synergize with public policy, given that it cannot be separated in its formation and enforcement, and the law must also synergize with elements of technology, economics, and socio-culture to absorb the latest technological and economic developments and absorb socio-cultural aspirations in its formation. Socio-cultural aspirations are important to be used as a reference so that the laws formed are in accordance with the identity and ideology of the nation and can provide direction if there are interventions or foreign socio-cultural impacts that could damage the national socio-cultural system.

Legal higher education institutions play a crucial role in conducting studies and contributing ideas to address the development and emergence of new technologies, especially from a legal study and legislative perspective, so that these technologies can have a legal basis

when applied for the benefit of humanity (society). Legal experts, academics, legal observers, law enforcement officers, experts in various technological fields, and society should always follow, monitor, and anticipate technological developments that are progressing so rapidly through scientific studies via academic discussion forums, seminars, research, or by offering specific courses examining technological developments from a legal perspective (in law faculties).

Law often appears to lag behind compared to technological developments because regulations on the use of new technologies can be formulated only after these technologies are used by society. Some technological developments applied in Indonesia generally have a legal basis, while others still require regulation in legislation. Anticipation of future technological developments needs to be conducted if these technologies will eventually be used or applied by society to aid and simplify job execution, especially from a legal perspective, through various scientific activities (discussions, seminars, research, offering specific courses studying the development of technology from a legal perspective, etc.) as an effort to understand these technological developments. Thus, when needed to formulate legislation related to these new technologies, appropriate legislation can be established.

Efforts to build a unified field of law within the national legal system are a legal requirement for Indonesian society. In the formation of law as part of the development of the national legal system, attention should be paid to philosophical, sociological, and legal foundations. Additionally, aspects of flexibility and future reach are crucial so that their application is not rigid and enduring.[4]

4 Conclusion

Legal reform to address the lag of law behind advancements in science and technology involves:

- a. Principles, as one of the elements of legal terminology, play a role in guiding the law itself—Pancasila as the state ideology.
- b. The government should have an integrated legislative institution focused on preparing concepts and bill drafts as parliamentary partners. The existence of an integrated institution filled with various permanent Ministry/Agency elements that qualify for the formation of quality laws is crucial for realization.
- c. Law must synergize with public policy, as its formation and enforcement are inseparable. Law also needs to synergize with elements of technology, economics, and socio-culture to absorb the latest technological and economic developments and incorporate socio-cultural aspirations in its formation. Socio-cultural aspirations are important as a reference to ensure that the laws formed align with the identity and ideology of the nation and can provide direction in case of interventions or foreign socio-cultural impacts that could harm the national socio-cultural system.

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