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Indonesia's latest regulation in telecommunications to support broadband services and conducive investment

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Abstract: In the era of digital disruption, the imperative development of broadband services is evident. The emergence of 5G technology represents the latest stride in commercial broadband, offering data speeds poised to drive significant societal advancement. The midst of responding to this transformative phenomenon. This pursuit unveils a landscape replete with opportunities and challenges, particularly regarding how 5G's potential benefits can drive the government towards equitable distribution, ensuring accessibility for all. Simultaneously, there exists a legal hurdle to ensure this vision's fruition. From a legal perspective, perceived as infrastructure for transformation, the law must seamlessly adapt to and promptly address technological progress. Utilizing normative juridical methods and analytical techniques via literature review, this research endeavors to outline the advantages of 5G and scrutinize Indonesia's latest telecommunications regulations and policies, alongside corresponding investments. The study ultimately aims to provide a juridical analysis of 5G implementation within Indonesia's legal framework.

Keywords: 5G technology; mobile telecommunication networks; positive laws of Indonesia

1. Introduction

Broadband service in cellular telecommunications networks development is the latest technology that is beneficial for human life and civilization. The current cellular telecommunications networks that develop rapidly and more sophisticated are inseparable from the role of previous inventions and findings that help people relish the technological development over time. Starting with Philip Reis invention of a communication device with a prototype similar to today's telephone in 1861 (Gorman and Bernard, 1990), advances in the field of cellular communication continue to grow and be driven by innovators such as Alexander Graham Bell, Thomas Watson, and Thomas Alva Edison who introduced the telegraph and improved the commercial telephone model (Gorman and Bernard, 1990).

From that point, the cellular telecommunications network began to form its own era, starting in 1984, Japan had succeeded in establishing the use of first-generation technology (1G) extensively in its country that was then followed by other countries. 1G actually supports the existence of cellular voice calls albeit limited coverage and capacity. Furthermore, the second generation (2G) also comes with the improvement of the 1G limitations, namely by utilizing digital systems to offer higher quality communication services (Eluwole, 2018).

Then, the third generation (3G) comes with a focus on data transmission speeds and message reception enhancement. Afterwards, the fourth generation (4G), as the prima donna in the development of cellular telecommunications networks, focuses on

emphasizing digital elements in every industrial sector such as cellular information and communication technology. Therefore, it can be seen that cellular telecommunications networks development in each generation offers an improvement in speed, greater capacity and the latest features in its services (Gallagher and DeVine, 2019).

5G technology comes as the latest commercially available broadband technology in the cellular telecommunications networks' development phase. In fact, the 5G Public Private Partnership (5G PPP) states that this technology is the key to the digital world (5G PPP, 2014). It is because the improvements offered in this technology are able to surmount the previous technologies. In this era, human mundane problems can be solved with various technologies, such as artificial intelligence (AI) that can be used to complete tasks through processes driven by digital technology based on big data and advanced internet (Safiranita et al., 2020).

In the rapidly evolving digital era, broadband has become the backbone of global communications and connectivity. However, with the advent of 5G technology, society is on the verge of a significant transformation in how it interacts with the world around it. 5G technology promises a world that is instantly connected, where response times are instantaneous and innovation is infinite. To fully understand this revolutionary potential, it is necessary to understand how important broadband is to people's daily lives. From instant messaging to fast internet browsing, broadband has enabled people to connect with the world more intimately than ever before (5G PPP, 2014).

The advanced capabilities of 5G technology signal the emergence of new opportunities in the domain of significantly accelerated technological advancements. This dynamic presents new challenges for Indonesia as the government grapples with the responsibility to guarantee the uniform application of evolving technology for widespread public benefit. Moreover, a comprehensive regulatory framework is imperative to address this need. Without a legal presence, technological advancements are feared to produce adverse impacts on human life.

5G technology is penetrating the space-time boundaries that has the potential to also lead to new criminal practices. Meanwhile, the implementation of 5G technology in Indonesia also requires infrastructure support and better frequencies, thus, this technology can be effectively implemented. Therefore, one of the ways for Indonesia to fully realize 5G implementation is through opening up opportunities for cooperation, hence, later, this technology can be implemented without such great obstacles for Indonesia.

Law Number 6 of 2023 on Job Creation (The Job Creation Law), up to this point is the only regulation that has opened up avenues for cooperation in Indonesia.

The Job Creation Law permits telecommunication operators to collaborate internationally in advancing cutting-edge technology.

This paper will explore the critical role of broadband services in the evolution of communications technology, and how the arrival of 5G technology has the potential to change the paradigm of connectivity and interaction. It will also provide insight into how 5G technology will lead us to a more connected, smarter, and more productive future. Therefore, 5G technology as the newest telecommunications technology can be implemented in Indonesia. This study will analyze how existing regulations in

Indonesia can encourage telecommunications operators to implement 5G technology with the formulation of the following problems:

- 1) What are the advantages of 5G technology broadband services as the newest telecommunications network?
- 2) How can the realization of 5G technology implementation in Indonesia be achieved based on existing regulations?

2. Problems identification

This research was conducted by a research team consisting of legal experts and specialists in fields related to the object of study. The normative legal method is used to analyze phenomena related to applicable legal and regulatory aspects. With a literature study technique consisting of three legal materials, namely a) primary legal materials in the form of Law Number 6 of 2023 concerning Job Creation, Law Number 27 of 2022 concerning Personal Data Protection, Law Number 19 of 2016 concerning Amendments to Law Number 11 of 2008 concerning Information and Electronic Transactions, and Government Regulation Number 46 of 2021 concerning Post, Telecommunications, and Broadcasting; b) secondary legal materials in the form of journals and other literature to support the study; and c) tertiary legal materials in the form of KBBI (Kamus Besar Bahasa Indonesia) and the Law Dictionary.

The research was conducted over a period of time that included relevant and important data for the study. The research location focused on the relevant legal environment, including relevant government agencies, universities, and organizations related to the implementation of laws and regulations in Indonesia. The main objective of this research is to gain a better understanding of how applicable laws and regulations affect the phenomenon studied.

3. Literature review

Considering the increasingly massive technological developments, the law must be able to be dynamic in keeping up with the era. In this context, Kusumaatmadja (2002), in the theory of development law, describes that law as a means of reform in society must be able to stand up to create order and regulate people's lives. At least, by paying attention to the four main pillars, namely principles, rules, institutions, and processes. Hence, the law can be fully enforced as it should.

In line with the transformative legal theory issued by Ramli (2022), that law as a transformation infrastructure must be able to work side by side and make a timely response to technological developments. Thus, Indonesian law will not be left behind by the massive technological acceleration.

Prof. Ahmad M. Ramli shares his insights into transformative law theory grounded in development law theory, tailored to the era of Industry 5.0. Expanding on transformative law theory, particularly in relation to the widespread technological progress, the law is expected to keep pace with it, serving as a response to societal developments and innovations. Consequently, the law assumes the role of an infrastructure for transformation. The concept of Law as the Infrastructure of Transformation in Indonesia is conceptualized to highlight how the law not only serves as the foundation for certainty and order but, more importantly, acts as a catalyst and

compass for guiding Indonesia's transformation into Industry 5.0.

The theory of transformative law also elucidates how the law, akin to technology, should take a forefront position to serve as the infrastructure for Indonesia's transformation and be crafted in anticipation of the significant impact of digital technology. Hence, it is now imperative to scrutinize all the phenomena of the Industrial Revolution, assessing its benefits and impacts, and subsequently establish guiding legal infrastructure grounded in transformation for the advancement and prosperity of Indonesia. The law should be devoted to the nation of Indonesia, a flourishing state under the ideology of Pancasila, safeguarding all citizens and ensuring their common welfare. The evolution of technology and the digital economy is an undeniable reality. However, channeling technology and the progress in the economy, society, and culture to contribute to the well-being of the people, protecting the people and the nation's sovereignty, is a necessity.

Given, in the *lex digitalis* theory issued by Kadelbach and Gunther (2011), it can also be understood that there is no single virtual space that is not a legal jurisdiction. Therefore, the legal regulation related to the implementation of 5G technology broadband services development in Indonesia is highly essential to be taken into consideration and carried out comprehensively in order to achieve adequate legal arrangements. In its implementation, the existence of applicable legal principles is mandatory so that 5G technology development can run on the right track and provide benefits for Indonesia in line with the purpose of bringing this technology into society.

4. Discussion

4.1. Advantages of 5G technology broadband services as the latest cellular telecommunication network

5G technology broadband services as the fifth generation in the development phase of cellular telecommunications networks have superior bargaining power in terms of network speed that reaches even 10–100x faster than the 4G technology. Hence, it is possible to realize uninterrupted-simultaneous remote interactions without any interference or obstacles. The speed of this technology is even described as capable to download more than 30 high-quality or high-resolution movies in just a few seconds and can provide access to various applications and interconnection with various other telecommunications infrastructures (Kusuma and Setiawan, 2017).

With regards to the 4G era, it emphasizes on digital elements in every industrial sector. such as information technology and cellular communications (Safiranita et al., 2019). However, the problem of infrastructure and financing to implement 4G technology thoroughly remains an unsolved problem, thus, problems in 3G technology cannot be said to be solved by the presence of the 4G technology. Therefore, to be able to solve the ongoing problems, it is necessary to have a cellular telecommunications network that reaches a superior stage of development.

5G technology provides internet speeds of up to 1 Gbps with low signal latency and high bandwidth capabilities. It is no longer merely about dialing services, 5G technology can accommodate the development of artificial intelligence, virtual reality, and augmented reality at a more affordable cost compared to previous technologies,

thus, it will be easier to distribute internet access in a country. There are also some technical issues that have changed and been accommodated in 5G technology as an advantage, such as: (Kusuma and Setiawan, 2017) the use of frequencies beyond 5 GHz (mmWave), remodeling of the use of antennas to Massive MIMO, the use of several kinds of resources in one network, provision of self-coordinating networks and improved latency.

In its implementation in the context of Indonesia, although 5G technology has many advantages, the Indonesian Government will not switch off with 4G altogether, since the two technologies can be used simultaneously (Siringoringo, 2021). With regards to the use of frequencies from 5G technology, the United States, in early 2022, considered that the frequencies used in 5G technology could pose a risk to aviation. Thus, the United States has imposed area restrictions on the implementation of 5G technology. However, the Indonesian government issued a statement that 5G technology to be used in Indonesia would not pose a risk to aviation at all (Christiastuti, 2022). The frequency that is considered risky by the United States is the frequency band of 3.7–3.98 GHz, while in Indonesia, this frequency is not used for 5G technology but for satellite communication. Given that the implementation of 5G technology in Indonesia will use a frequency of 3.5 GHz, which is actually much lower. Thus, the regulation and use of 5G frequencies in Indonesia will be much safer (Nur, 2022).

Examining the opportunities and challenges, the current implementation of 5G technology in Indonesia is confined to specific major urban centers, such as Jakarta, Bandung, Surabaya, Semarang, and Yogyakarta. In this regard, the Indonesian government is still in the process of expanding 5G technology implementation. The unequal distribution of 5G technology primarily stems from the high cost of devices that support its implementation, making it challenging to execute the implementation plan in less potential areas. The investment in 5G by operators in Indonesia can be 10 times higher than 4G LTE, leading to a rise in service tariffs.

In comparison to other countries, such as China, it is evident that China offers 5G usage packages at a lower cost than 4G. This strategy aims to incentivize 4G users who typically purchase data packages exceeding 120 yuan to transition to 5G. Meanwhile, in the United States, 5G data packages are also priced lower than 4G (South China Morning Post, 2019). Overall, the average tariff for 1 GB of 4G in the US is US \$17, while for 5G networks, the average cost is \$13 (Mobile World Live, 2019). Nevertheless, if 5G technology is successfully implemented uniformly, there are at least several benefits that can be experienced, including:

- a) an increase in the number of internet users;
- b) the availability of other technology devices supported by the presence of 5G technology;
- c) an increase in the number of smartphone users;
- d) an increase in data traffic on mobile operators; and
- e) an increase in the number of IoT-connected devices in Indonesia.

The data speed offered by 5G technology is in line with social progress which can be observed through several aspects (5G PPP, 2014):

- a) The incredible data speeds of 5G technology enable faster and more efficient information exchange between individuals, organizations, and society as a whole.

This leads to increased productivity in a variety of fields, including business, education, and healthcare, as well as facilitating greater collaboration and innovation.

- b) 5G technology opens the door for the development and adoption of other advanced technologies, such as the Internet of things (IoT), augmented reality (AR), and virtual reality (VR). With faster and more reliable connectivity, these technologies can be implemented more widely and effectively, bringing significant benefits in terms of health monitoring, transportation management, and enhanced user experience.
- c) The speed and reliability of 5G technology enables the creation of a more resilient digital infrastructure, which can be used to support the development of smart cities, more efficient public services, and solutions to social challenges such as poverty, inequality, and disaster resilience.

The form of social progress impacted by the presence of 5G technology is the concept of Smart City, which is a future vision of how cities can use information and communication technology to improve citizen life, operational efficiency, and environmental sustainability. The incredible speed and network capacity of 5G technology will enable Smart City to integrate millions of connected devices in real-time, from smart sensors to autonomous vehicles. This will create a smart and connected infrastructure, allowing cities to collect and analyze data efficiently to improve public services, such as traffic management, waste management, and environmental monitoring. 5G technology will also support a more efficient transportation system thanks to the use of autonomous vehicles and real-time traffic management, as well as more sophisticated security solutions to monitor the city as a whole (Smart City Nusantara, 2022).

5G technology will accelerate the development of the Smart City ecosystem by enabling collaboration between the public, private and academic sectors in developing and testing new solutions. Thus, the implementation of 5G technology can be a key driver in realizing the vision of an innovative, efficient and sustainable Smart City. Thus, 5G technology not only provides faster access to the internet, but also opens up new opportunities for broader social transformation, shaping a more connected, more inclusive and more sustainable future (International Telecommunication Union, 2021).

4.2. Comparison of telecommunications regulations supporting broadband services and their practices in several ASEAN countries

Telecommunications regulations that focus on supporting broadband services in ASEAN countries have diversity that reflects the challenges and opportunities in adopting evolving broadband technology. In general, regulations related to this require a comprehensive review through various aspects that include government policies, investment opportunities, services and access, and other supporting aspects. 5G technology as one of the technologies being developed can basically change the broadband service landscape substantially and provide beneficial opportunities. Therefore, in regulating broadband services, each country needs to take into account aspects related to the implementation of broadband service developments, including

frequency spectrum allocation, investment regulations, and supportive access policies.

The following are telecommunications practices and regulations that support the development of broadband services and open up the potential for implementing 5G technology in several countries in the ASEAN region:

a. Frequency spectrum policy

The frequency spectrum allocation policy is key to ensuring efficient and effective broadband service development in a country. In Singapore, the progressive approach to frequency spectrum allocation is reflected in a policy that is open and responsive to technological developments. The Infocomm Development Authority of Singapore (IMDA) has introduced a dynamic and inclusive approach, allowing telecommunications operators to participate in frequency spectrum auctions. The legal basis for this can be seen in the Telecommunications and Media Act and regulations issued by IMDA (Infocomm Media Development Authority of Singapore (IMDA), 2016).

On the other hand, Laos has a more limited or centralized policy in the allocation of frequency spectrum. This may reflect the limitations of available infrastructure and resources as well as different political and economic conditions. The allocation of frequency spectrum is also regulated in the telecommunications law enacted by the Lao government (Mohapatra, 2022).

b. Investment regulation

Looking at Malaysia and Thailand, investment in the telecommunications sector in both countries is relatively open in providing incentives for telecommunications operators and internet service providers to develop broadband infrastructure. The regulations can refer to telecommunications laws and investment policies issued by the regulatory authorities of each country, such as the Telecommunication Acts 1998 in Malaysia (Malaysian Communications and Multimedia Commission (MCMC), 1998) and the Telecommunications Business Act B.E. 2544 in Thailand (National Broadcasting and Telecommunications Commission (NBTC), 2001).

In contrast, in Vietnam, investment rules in telecommunications infrastructure may be more stringent or more centralized, which may create challenges for telecommunications operators in accessing the funds needed to develop broadband infrastructure. The legal basis is based on the investment law and telecommunications regulations issued by the Vietnamese government (Vietnam Ministry of Information and Communication, 2024).

These differences in investment regulations can affect the level of private investment in telecommunications infrastructure and, as a result, the country's ability to support the development of broadband services. Countries with more open investment regulations tend to have greater access to the financial and technical resources needed to build more extensive and sophisticated broadband infrastructure. Therefore, the role of regulatory authorities in creating a conducive investment environment is crucial in supporting the growth of broadband services.

c. Ownership and partnership

Regarding ownership and partnership of telecommunications infrastructure management, the Philippines is one of the countries that can be seen to have advantages in terms of an approach that tends to rely on private-public partnerships in ownership and management of telecommunications infrastructure as an important

strategy in supporting the development of broadband services. This is reflected in the Philippine government's active policy in promoting private investment in the telecommunications sector through public-private partnership (PPP) cooperation and supportive regulations (Japan International Cooperation Agency, 2017).

The legal basis for this approach can be found in the laws and regulations governing PPPs and telecommunications policy in the Philippines. For example, the Philippine Public-Private Partnership (PPP) Act and the Philippine Competition Act play a key role in facilitating public-private partnerships in the development of telecommunications infrastructure, including broadband services.

Meanwhile, in Indonesia, policy may be more inclined to encourage government or private ownership of telecommunications infrastructure. While there are also important public-private partnerships, the Indonesian government has set ambitious targets for building national telecommunications infrastructure through programs such as the Palapa Ring, which aims to provide broadband internet access throughout Indonesia. The development of more government-owned or privately-owned telecommunications infrastructure in Indonesia reflects the government's strategy to balance public and private interests, and ensure widespread adoption of broadband services across the country.

d. Government initiatives

Strong government initiatives to encourage broadband adoption can be a major driver in the development of telecommunications infrastructure, including 5G networks. In Malaysia and Thailand, through subsidy programs and digital government initiatives, both countries have sought to increase the accessibility and adoption of broadband services across the country. Programs such as Malaysia's National Fiberisation and Connectivity Plan (NFCP) (Malaysian Communications and Multimedia Commission (MCMC), 2018) and Thailand 4.0 Vision (Wilert Puriwat, 2020) become part of the government's efforts to transform these countries into advanced digital societies, with 5G as one of the main focuses.

The legal basis for this initiative can be found in the telecommunications laws and other related regulations issued by the governments of Malaysia and Thailand. For example, Malaysia has issued the Communications and Multimedia Act which provides the legal basis for the implementation of the NFCP. Meanwhile, Thailand has a telecommunications law that sets out the framework for the development of telecommunications infrastructure and digital services.

On the other hand, Brunei may have a more centralized and coordinated initiative with the private sector in developing broadband services, including 5G. Nevertheless, government efforts remain important in creating a conducive environment for private investment and telecommunications infrastructure development. The legal basis for this initiative can be found in the laws and regulations governing the relationship between the government and the private sector in telecommunications development in Brunei.

Overall, the government's strong initiatives in driving the adoption of broadband services, including 5G, in Malaysia, Thailand and Brunei, reflect the government's commitment to addressing the challenges and seizing the opportunities associated with digital transformation, with a legal basis supporting the implementation of these policies.

It is critical for ASEAN countries to evolve their telecommunications arrangements to keep pace with technological developments, especially by harnessing the full potential of 5G technology. By strengthening supportive regulatory frameworks, providing appropriate investment incentives, and ensuring equitable access to broadband services, ASEAN can accelerate economic growth and strengthen digital inclusion across the region. With collaboration among countries, and engagement from the private sector and civil society, ASEAN can unlock the full potential of the information technology revolution it is facing. Through these joint efforts, ASEAN can become a leader in realizing the vision of equitable access to technology for all its citizens, while continuing to move towards a digitally connected and inclusive future.

4.3. Indonesian regulations in the telecommunications sector that support broadband services and conducive investment

In responding to the development of 5G technology broadband services to be applied optimally in Indonesia, it is necessary to have maturity in terms of regulation as the foundation for the implementation because the use of 5G technology will attract a massive presence of other new technologies. The development of information and communication technology has actually resulted in the absence of boundaries (borderless) (Ramli, 2006). This technology tends to continue developing and potentially poses implications that can be anticipated and to be cautious (Ramli, 2008). Therefore, it is necessary to have a number of regulations that are able to comprehensively accommodate the development of 5G technology implementation.

Investment in 5G technology has begun in Indonesia. One example of the latest investment in the Indonesian telecommunications sector is the investment of large telecommunications companies, such as Telkomsel, in the development of 5G network infrastructure. Telkomsel has announced its plans to launch 5G services in several major cities in Indonesia, including Jakarta, Surabaya, and Bandung (Telkomsel, 2024). Telkomsel has carried out a series of infrastructure developments needed to support 5G technology, including the installation of 5G antennas, increasing network capacity, and testing 5G technology in the field. In addition, Telkomsel has also invested in the development of 5G-based applications and services that can provide a better experience to customers, such as cloud-based gaming services, virtual reality (VR), and augmented reality (AR) (Telkomsel, 2024).

This investment opens up opportunities for other telecommunications service providers to follow in Telkomsel's footsteps and accelerate the adoption of 5G technology in Indonesia. With competition in the market, it is estimated that there will be a greater increase in investment in 5G infrastructure and technology innovation in the future. Thus, regulations are needed that can comprehensively accommodate investments in the development of this technology.

The Job Creation Law, as the most recent regulation in Indonesia, has unlocked opportunities for the advancement of broadband services and conducive investments. This legislation has addressed legal voids and begun to address current needs, including accommodating regulations for Over the Top (OTT) services, fostering collaboration among telecommunications providers, and formulating policies on

infrastructure sharing. These regulations are fundamentally designed to realize the objectives of the Job Creation Law, specifically enhancing the investment environment, streamlining business processes, and accelerating national strategic projects.

In the telecommunications sector, the Job Creation Law makes changes to Article 33 of the Telecommunications Law which originally had only 4 articles to be 9 articles by adding regulations related to cooperation in the use of radio frequency spectrum for the application of new technology. This arrangement, certainly, initiated the potential for Indonesia to be able to carry out the development of 5G technology broadband services with infrastructure support which will be obtained through the concept of cooperation between telecommunication providers.

Through the Job Creation Law, the government encourages network sharing where the use of passive and massive infrastructure can be used simultaneously through a collaborative process built between operators (Siringoringo, 2021). As for then, a similar matter is also further regulated in its implementing regulations, namely Government Regulation Number 46 of 2021 on Postal, Telecommunications and Broadcasting (Government Regulation on Postal, Telecommunications and Broadcasting) that regulates cooperation in the use of radio frequency spectrum based on the principles of efficiency, fair business competition, and non-discriminatory. Based on Article 49 paragraph (3) and Article 50 of the Government Regulation on Postal, Telecommunications and Broadcasting, it is stated that the joint use of the radio frequency spectrum is carried out with the principle of efficiency, not causing harmful interference, non-discriminatory principles and fair business competition.

The open door for cooperation with regard to the radio frequency spectrum is a form of conducive investment potential that Indonesia can utilize. It is because Indonesia requires support for greater infrastructure sharing to realize 5G technology, especially related to telecommunication network infrastructure. Thus, through the telecommunications sector regulation in the Job Creation Law, it is a necessity for Indonesia to realize the use of 5G technology.

Considering the existing principles, the implementation of frequency sharing can create a conducive investment climate by opening opportunities for collaboration. Furthermore, to complement 5G technology adoption, there is a set of technical regulations that should also be considered in addition to the Job Creation Law, which accommodates the telecommunications investment domain, as follows:

- a) Regulations and policies related to the Frequency Spectrum and other telecommunications infrastructure

In this context, Indonesia does not have regulations related to frequency sharing schemes in the application of new telecommunication technology. The scheme is important to describe and define an appropriate frequency-sharing model to apply in Indonesia. As for then, it is necessary to arrange regulations related to other telecommunications infrastructure that will later be related to 5G technology implementation.

- b) Security system regulations and policies

In this context, 5G technology has a high-speed telecommunications network and is able to encourage the presence of other new technological innovations. Hence, Indonesia needs special arrangements with regard to the Internet of things (IoT) as

something that is growing massively in the technology sector. It is necessary to have a security standard for using IoT devices that goes along with regulations related to data protection in Indonesia. Rapid technological developments in the near future will always have negative implications for the emergence of security threats to privacy (Dewi, 2015). Currently, Indonesia has an Electronic Information and Transaction Law (EIT Law) to accommodate the protection related to information and electronic use as a new legal form in response to the current technological developments (Ramli, 2020).

However, the development of technological problems, especially in cyberspace, is actually broader than that. Although Indonesia currently has regulations on personal data protection, namely Law Number 27 of 2022 on Personal Data Protection (PDP Law), further development is still needed. This development includes the formulation of technical implementation regulations and the establishment of a specialized institution to oversee personal data protection. Not only is this problem a challenge in the present, but it will also have a sustainable impact on the future.

Through the Job Creation Law that is supported by the implementing regulations, and policies in Indonesia, 5G broadband technology services can be implemented properly and open up conducive investment opportunities. In addition, the utilization of 5G advantages can run optimally in accordance with the objectives of technological development, namely to facilitate human lives and advance civilization. Thus, the law will be realized fully as a means of reform in society that can be used as the basis or foundation for the community to carry out their lives by using technology.

5. Conclusion

5G technology as the latest milestone in the development of broadband services, the potential to accelerate global connectivity is becoming increasingly apparent. The incredible speed of this technology will not only provide a better digital experience, but also open the door to new innovations that could change the way we interact with the world around us. However, to fully realize this potential, a comprehensive and responsive regulatory framework is needed, as well as strong collaboration between the government, service providers, and other stakeholders. The implications of implementing 5G technology in Indonesia are significant, not only in improving the quality of broadband services, but also in creating a conducive investment climate. With appropriate regulations and adequate infrastructure support, Indonesia can optimize the opportunities offered by 5G technology to advance the telecommunications sector and accelerate overall economic development.

Through this research, it is recommended for the Government to continue to encourage regulatory updates that support the adoption of 5G technology, by ensuring cybersecurity and fairness in business competition. In addition, cross-sector and international cooperation also needs to be improved to ensure the successful implementation and sustainability of 5G technology in Indonesia. Its global impact cannot be ignored either. The successful implementation of 5G technology can be an example for other countries in utilizing the potential of the latest technology to improve connectivity and accelerate economic development. Therefore, collaboration between countries in the development and standardization of 5G technology is also an

important step to create an inclusive and sustainable digital ecosystem worldwide.

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