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Assessing the Urgency of Government Regulation Number 28 of 2024 on Telemedicine and Digital Consumer Protection

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Abstract

Government Regulation Number 28 of 2024 focuses on aligning health policies with consumer protection in the digital era, especially in the context of telemedicine. This study analyzes the urgency of this regulation amidst the development of information technology that has changed the delivery of health services. Telemedicine offers easy access, especially in remote areas, but is also faced with challenges related to service quality, data security, and protection of consumer rights. With a normative legal approach, this study evaluates the norms in the PP and their impact on digital health practices. The results show that technological infrastructure, health worker competence, and clear regulations are very important to ensure the effectiveness of telemedicine. In addition, personal data protection is a crucial issue that needs to be regulated to maintain consumer trust. Challenges in the consistency of service standards and digital literacy of the community were also identified. Therefore, collaboration between the government, health service providers, and the community is needed to build an efficient and effective telemedicine ecosystem, which in turn can improve the quality of health services in Indonesia. This study is expected to contribute to the development of relevant and comprehensive policies in the field of digital health.

Keywords

Consumer Protection, Digital Health Services, Information Technology, Patients, Telemedicine.

1. Introduction

The rapid advancement of information and communication technology has revolutionized healthcare delivery, with telemedicine emerging as a transformative solution to enhance access, efficiency, and disease prevention, particularly during the COVID-19 pandemic. Telemedicine facilitates remote consultations, reduces overcrowding in healthcare facilities, and extends medical services to underserved regions, offering significant benefits such as cost reduction and improved patient outcomes (Sari & Wirman, 2021; Putra et al., 2024). However, its widespread adoption has introduced complex legal and ethical challenges, including inconsistent service quality, inadequate regulatory frameworks, and vulnerabilities in patient data security.

In Indonesia, the absence of comprehensive legal guidelines prior to 2024 created uncertainties in telemedicine practices, raising concerns about consumer protection and professional accountability. Government Regulation Number 28 of 2024 was introduced to address these issues by establishing a robust legal framework that aligns digital healthcare practices with clinical standards and consumer rights. This regulation emphasizes data privacy, ethical conduct, and transparency, fostering a secure and trustworthy digital health ecosystem (Heriani & Adlina, 2024; Widjaja et al., 2025). The urgency of this regulation stems from the need to balance technological innovation with the protection of sensitive patient information, which is increasingly at risk in the digital era due to potential data breaches and misuse.

Despite its benefits, the integration of telemedicine into Indonesia's healthcare system reveals significant regulatory and practical gaps that necessitate urgent attention. According to Siregar (2021), earlier studies on telemedicine in Indonesia primarily focused on its technical feasibility and clinical outcomes, with limited exploration of its legal and consumer protection dimensions. Similarly, Kuntardjo (2020) noted that prior regulations, such as the Minister of Health's Regulation Number 20 of 2019, were insufficient to address the ethical and legal complexities of digital health services, particularly regarding data security and patient rights. These studies highlight a critical research gap: the lack of comprehensive analyses evaluating how regulatory frameworks, like Government Regulation Number 28/2024, address the interplay between technological advancements and consumer protection in telemedicine. Furthermore, there is limited academic discourse on how such regulations ensure accountability and equity in digital healthcare delivery across diverse Indonesian contexts. This gap highlights the need for a normative legal analysis to evaluate the effectiveness of Government Regulation Number 28/2024 in establishing a cohesive and consumer-centric telemedicine ecosystem.

This study aims to evaluate the effectiveness of Government Regulation Number 28 of 2024 in governing telemedicine practices within Indonesia's evolving digital healthcare landscape, with a specific focus on its ability to safeguard consumer rights and ensure service quality. The research objectives are threefold: first, to analyze how Government Regulation Number 28/2024 addresses critical issues such as data privacy, informed consent, and transparency in digital medical services; second, to assess its alignment with the practical needs of healthcare providers and patients; and third, to identify gaps and propose evidence-based policy recommendations to enhance the regulation's impact. By examining the regulation's provisions and their implementation, this study aims to understand how it mitigates challenges such as inconsistent service standards and low digital literacy, which are crucial for building public trust (Purnomo, 2024; Dalimunthe et al., 2025). Additionally, the research explores how Government Regulation Number 28/2024 facilitates collaboration among stakeholders, government, healthcare providers, and communities to create an inclusive and resilient telemedicine framework. Through a normative legal approach, this study aims to contribute to the development of adaptive policies that

ensure telemedicine remains ethical, secure, and accessible, ultimately supporting Indonesia's goal of equitable healthcare in the digital age.

2. Literature Review

Telemedicine refers to the use of information and communication technology to provide remote medical services, such as diagnosis, treatment, and consultation (Ummon & Halim, 2020; Hariri et al., 2025). Its growth has accelerated since the COVID-19 pandemic, responding to the need for accessible healthcare while maintaining physical distancing. It allows patients to consult with doctors via video calls, phone, or text, which is especially helpful for people in remote areas or those with mobility issues. Additionally, internet-connected devices enable remote monitoring of patient conditions, transmitting data like blood pressure and glucose levels to doctors for evaluation and treatment. The primary benefit of telemedicine lies in improving access to care. It reduces the need for patients to travel, cuts waiting times, and lowers overall healthcare costs (George & George, 2023). For healthcare providers, telemedicine enhances efficiency and expands their ability to reach patients. However, challenges remain, including concerns over patient data security and the limitations of treating conditions that require physical examination (Syamsuddin & Jusliani, 2024).

Fundamental to telemedicine are principles such as effective communication, secure data management, affordability, and multidisciplinary collaboration. Technologies such as video conferencing and electronic health records enable real-time communication and the storage of patient data, which must be protected to ensure patient privacy (Rajam et al., 2024; Harry & Widjaja, 2025; Anailyka et al., 2025). Moreover, collaboration among specialists through digital platforms supports comprehensive treatment plans, particularly for chronic conditions. Affordability is another key advantage of telemedicine, as it reduces travel costs and time, and can lower overall system expenses while improving patient satisfaction. However, its implementation depends heavily on technological infrastructure, such as reliable internet, and not all medical cases are suitable for virtual treatment. Legal and ethical regulations are essential for supporting telemedicine. Different countries approach licensing, reimbursement, and data protection in varying ways, underscoring the need for regulatory alignment (Ayuningtyas, 2023; Lakoro et al., 2025). As technology advances, telemedicine is expected to play an increasingly vital role in creating more efficient and accessible healthcare systems worldwide.

Consumer protection theory is a crucial area of study in economics and law, focusing on safeguarding consumer rights and interests from unfair or harmful business practices. A consumer is defined as an individual or group that purchases goods or services for personal use, rather than for business purposes. One key principle is the recognition that consumers often occupy a weaker position than producers or service providers. This power imbalance can lead to consumers being exposed to fraud, substandard products, or inadequate services. Hence, consumer protection is vital for ensuring fair and transparent market conditions (Anggono & Hidayat, 2025). This theory also highlights the role of government regulations in protecting consumer rights. Many countries have adopted consumer protection laws that regulate product labeling, advertising, and complaint mechanisms. For instance, producers are often required to disclose clear information regarding product contents, risks, and usage instructions. Moreover, it emphasizes the importance of consumer education. Informed consumers are more critical in their product choices, thereby encouraging companies to improve their quality. Educated consumers are also better protected against misleading marketing.

In the digital era, the theory becomes even more relevant (Gupta et al., 2022; Intes et al., 2024). The rise of online transactions introduces new concerns like data privacy, cybersecurity, and fraud. As such, consumer protection theory must evolve

to keep up with digital market dynamics. It also encompasses essential principles, including the right to safety, accurate information, fair treatment, freedom of choice, and recovery. Governments must enforce regulations to ensure products meet safety standards. Transparency in pricing, ingredients, and usage allows informed decisions. Legal safeguards should also protect consumers from misleading ads, monopolistic practices, and ensure the availability of alternatives (Ardyles & Ilyas, 2022). Ultimately, the right to redress enables consumers to seek compensation for damages, thereby fostering trust and encouraging producers to maintain high standards.

Technological Innovation Theory is a framework that explains how innovations are discovered, developed, and adopted in society. It includes not only the creation of new products but also changes in processes, services, and business models that can impact companies and society. In today's rapidly evolving world, innovation is a key driver of economic growth and competitiveness. One of the essential aspects of this theory is the innovation life cycle, which encompasses the journey from idea discovery and development to testing and market acceptance. Initially, innovation may involve high risks, but if successful, it can lead to transformative change. As innovations spread, their adoption depends on how information is communicated to potential users. In this context, Everett Rogers' "Diffusion of Innovations" theory is widely used. According to Rogers, the diffusion process consists of five stages: knowledge, persuasion, decision, implementation, and confirmation. Various factors influence diffusion, including the characteristics of the innovation, communication channels, and the social traits of adopters. Innovations that are easy to understand and apply are more likely to be accepted (Murima et al., 2022).

Social and cultural factors significantly influence how people respond to new technologies. Institutional support, such as from government or private sector actors, can help accelerate the adoption process (Sarif & Issalillah, 2022; Goyat, 2023). This includes building infrastructure and providing incentives for research and development. However, not all innovations are successful. Resistance from users, limited resources, or unsupportive policies can hinder adoption. In the digital era, innovations such as big data, the Internet of Things (IoT), and Artificial Intelligence (AI) are changing how organizations operate. Big data enables companies to make faster, data-driven decisions, while AI facilitates the development of more innovative services. Digital transformation also brings changes in work patterns, with remote and flexible work becoming more common. Despite the benefits, challenges like data privacy, ethics, and algorithmic bias must be addressed. Modern innovation theory also incorporates sustainability concerns, focusing on eco-friendly solutions such as renewable energy and green technologies. Ultimately, understanding technological innovation theory helps societies adapt to change, maximize benefits, and ensure ethical and sustainable progress.

3. Methods

This research is qualitative research based on normative law, which means that the legal study process focuses on legal norms and principles. In this context, the law is understood as a set of norms derived from legislation, court decisions, as well as thoughts or doctrines from leading jurists. This research method analyzes the two-way relationship between legal facts and social facts. The normative juridical research method is an approach in legal studies that focuses on analyzing the legal norms contained in laws, regulations, and applicable legal principles. In the context of research, this method will be used to explore and evaluate the PP through the existing legal framework, as well as its impact on health policies and consumer protection in the digital environment.

Firstly, this study will analyze the content and provisions of Government Regulation Number 28 of 2024. This includes identifying the norms set out in the

regulation and understanding how these norms contribute to aligning health policy with consumer protection. This research may also involve studying other relevant regulations, such as consumer protection laws and health laws, to understand the interactions between existing policies. Furthermore, the normative juridical method also involves analyzing the legal doctrines underlying related issues. For example, in the digital age, new challenges arise in personal data protection and information security that must be considered. The researcher will consider the legal principles related to consumer protection in cyberspace as well as the standards set by the relevant regulatory bodies. This also includes examining how Government Regulation Number 28 of 2024 accommodates technological developments and innovations in the health sector.

Additionally, this method enables researchers to assess current practices in implementing health and consumer protection policies. This research may involve case studies or analysis of how existing policies are being implemented in the digital context, as well as the challenges and barriers faced. Using a normative juridical approach, this analysis aims to provide law-based recommendations on how Government Regulation Number 28 of 2024 can be more effective in harmonizing health policies and consumer protection in the digital era. This is important to create a healthy and safe ecosystem for consumers and ensure that their rights are protected in healthcare practices that are increasingly integrated with technology.

4. Results

4.1. Telemedicine in Patient Referral Mechanisms

Telemedicine is the provision and facilitation of clinical services through telecommunications and digital communication technology. Article 520 paragraph (6) explains that "In determining referrals, primary health care facilities can use Telemedicine". The referral mechanism for implementing telemedicine in primary health care facilities, as stipulated in Article 520, paragraph (6) of Government Regulation Number 28 of 2024, allows primary health care facilities to utilize telemedicine in determining patient referrals. In this context, telemedicine serves as a means that facilitates communication and collaboration between healthcare providers, making the referral process more efficient and faster. The referral process in telemedicine involves several important steps. First, health workers in primary facilities conduct an initial evaluation of the patient's condition. Suppose the patient requires further treatment that cannot be provided at the facility (Yusri, 2024). In that case, the health worker can use telemedicine to consult with a specialist doctor at a higher health facility.

During this consultation, important medical information, including examination results, medical history, and the patient's current condition, can be communicated in real-time through a secure platform that meets privacy standards. Second, after consulting with a specialist doctor, health workers in primary facilities can make informed decisions regarding patient referrals, including determining the type of care needed and identifying the most suitable health facilities. This can reduce wait times and improve the patient experience, as they will be directed to the right place based on the specialist's recommendations, eliminating the need to visit multiple facilities in person. However, the effectiveness of telemedicine in the heat referral process is greatly influenced by several factors. First, a sound technological infrastructure is essential to support smooth and effective communication between healthcare facilities. The availability of adequate hardware and software, along with a stable internet connection, is a crucial factor in ensuring the smooth operation of telemedicine services. Second, the competence of health workers has a significant influence on the success of telemedicine referrals. Doctors and medical personnel

must possess a solid understanding of telemedicine technology and practical communication skills for interacting virtually (Afandi et al., 2021).

4.2. Facilities, Infrastructure, and Implementation of Quality Telemedicine Services

Adequate training and education for healthcare workers related to telemedicine technology is essential. Third, regulations and policies also play an important role. Having clear rules that support the use of telemedicine, such as those related to data privacy and professional responsibility, will increase trust and compliance from all relevant parties. Without solid regulatory support, concerns may arise about the legality and ethics of making referrals via telemedicine. Fourth, disseminating appropriate information to the public is also an important aspect. Patients need to be informed about the benefits and functions of telemedicine in the referral process so that they can effectively utilize these services. By paying attention to these factors, the use of telemedicine in referral mechanisms within primary health care facilities can function optimally, driving the efficiency and effectiveness of the healthcare system as a whole.

Article 554 paragraph (1) explains that "In supporting the implementation of quality Telehealth and Telemedicine, Health Service Facilities must provide facilities, infrastructure, and/or equipment". In the context of implementing quality telemedicine, Article 554 paragraph (1) of Government Regulation Number 28 of 2024 emphasizes the need for health service facilities to provide appropriate facilities, infrastructure, and equipment. These requirements are fundamental to ensure that telemedicine services can function effectively, efficiently, and safely. The facilities in question include various communication and information technologies, such as computer devices, tablets, and smartphones equipped with telemedicine applications. Medical equipment also plays a crucial role in ensuring the quality of telemedicine services, such as health monitoring tools that can transmit data in real-time, including blood pressure monitors and blood sugar level monitoring devices (Damayanti, 2024).

With adequate facilities and equipment, healthcare providers can make more accurate diagnoses, provide more interactive consultations, and enable continuous monitoring of patients' conditions. In addition to technological facilities and equipment, infrastructure is also an important aspect that should not be overlooked. This includes stable and secure network infrastructure, such as a fast and reliable internet connection to support video calls or other applications in a summary of the interaction between doctor and patient. The quality of the internet connection is a crucial element in telemedicine, as network disruptions can disrupt communication and result in errors in medical diagnosis and treatment. The impact of providing adequate facilities, infrastructure, and equipment on the quality of health services delivered to the community is substantial. First, with the right technology, patients can receive medical consultations from anywhere without having to go to a healthcare facility, which of course, increases accessibility. This is especially beneficial for patients residing in remote areas or those with mobility limitations. With telemedicine, patients can receive healthcare quickly without having to wait in long lines at the hospital. Additionally, with the right medical equipment, doctors can make more accurate assessments and recommend appropriate treatments based on the health data obtained (Dimitrov, 2016; Dash et al., 2019; Zamzam et al., 2021).

In situations where time is of the essence, such as in the treatment of acute medical conditions, telemedicine supported by effective tools and technology can expedite the treatment process and enhance patient health outcomes. However, the availability of these facilities and equipment also needs to be balanced with training for medical personnel in using existing technology. Without a good understanding of how to use these tools and applications, even advanced technology will not deliver

optimal results. Therefore, training is an integral aspect of maximizing the potential of telemedicine services. By meeting the requirements, facilities, and equipment described in the regulations, healthcare facilities will not only operate telemedicine more effectively. However, they will also contribute to improving the overall quality of healthcare services, maintaining patient satisfaction, and strengthening public trust in the growing digital health system (Regah & Butarbutar, 2024).

Article 558 paragraph (1) explains that the implementation of Telemedicine includes services: a. between Health Service Facilities; and b between Health Service Facilities and the community. Article 558 paragraph (2) explains that the implementation of Telemedicine between Health Service Facilities as referred to in paragraph (1) letter a is Telemedicine that is carried out between one Health Service Facility and another Health Service Facility to enforce diagnosis, clinical management, and/or prevention of disease and injury.

5. Discussion

The implementation of telemedicine under Government Regulation Number 28 of 2024 represents a significant step toward integrating technological innovation into Indonesia's healthcare system. Its adoption can be effectively analyzed through the lens of Everett Rogers' Diffusion of Innovations Theory. This theory elucidates how innovations like telemedicine spread within a society, emphasizing factors such as infrastructure, user competence, and regulatory support. As highlighted by Goyat (2023), healthcare workers in primary facilities act as early adopters, evaluating and integrating telemedicine to enhance service delivery. The regulation's emphasis on technological infrastructure, reliable hardware, software, and stable internet connections aligns with Rogers' concept that the quality and accessibility of innovation influence its adoption rate. For instance, Article 554 paragraph (1) mandates healthcare facilities to provide adequate facilities and equipment, ensuring seamless communication between primary care providers and specialists. This infrastructure is critical for effective collaboration, enabling faster and more accurate patient referrals, which ultimately improves healthcare efficiency.

The competence of healthcare workers, as noted by Afandi et al. (2021), is another crucial factor in the success of telemedicine. Rogers' theory underscores the importance of user capability in adopting innovations, and Government Regulation Number 28/2024 addresses this by implicitly requiring training to enhance healthcare workers' proficiency in telemedicine technologies. Without such training, as Santoso et al. (2024) argue, the risk of diagnostic or treatment errors increases, potentially undermining consumer trust. Moreover, the regulation's legal framework, particularly its focus on data privacy and professional accountability, aligns with Indonesia's Law Number 27 of 2022 on Personal Data Protection, which mandates stringent measures to safeguard sensitive information. Compared to international standards, such as the European Union's General Data Protection Regulation (GDPR), Government Regulation Number 28/2024 shares similarities in prioritizing encryption and secure data management, but lacks the GDPR's comprehensive enforcement mechanisms, including mandatory data breach notifications within 72 hours. This gap highlights the need for Indonesia to enhance its regulatory oversight to align with global standards, thereby ensuring robust protection for patient data on telemedicine platforms.

Article 558 of Government Regulation Number 28/2024 outlines the scope of telemedicine, covering interactions between healthcare facilities and between facilities and the community, while emphasizing the protection of consumer rights. Brahmana and Karo (2022) emphasize that clear communication of service details, costs, and risks is crucial for informed patient consent, a principle reinforced in international guidelines, such as the World Health Organization's telemedicine framework, which advocates for transparency to foster trust. However, challenges

persist, including inconsistent service quality across providers, as noted by Ellyamurti et al. (2024), due to varying adherence to standards between public and private facilities. Additionally, low digital literacy among patients, as highlighted by Wulandari (2023), hinders effective engagement with telemedicine services. Unlike countries like Australia, which integrate digital literacy programs into telemedicine policies, Indonesia's regulation lacks specific provisions for public education, limiting its inclusivity.

The implications of these findings for policy and consumer protection are profound. Policymakers must prioritize harmonizing Government Regulation Number 28/2024 with existing laws, such as Law Number 17 of 2023 on Health, to ensure cohesive implementation. Strengthening training programs for healthcare workers and incorporating digital literacy initiatives for the public, as suggested by Murima et al. (2022), will enhance the accessibility and effectiveness of telemedicine. Robust enforcement of data protection measures, aligned with international standards, is crucial to safeguard consumer rights and foster trust. Collaboration between government, healthcare providers, and communities is essential to address inconsistencies in service quality and ensure equitable access. By addressing these gaps, Government Regulation Number 28/2024 can serve as a cornerstone for a consumer-centric, technologically advanced healthcare system in Indonesia, striking a balance between innovation and robust consumer protection.

6. Conclusion

This study concludes that the implementation of telemedicine, as outlined in Government Regulation Number 28 of 2024, offers significant potential to enhance healthcare delivery in Indonesia, particularly through improved communication between general practitioners and specialists. Key findings highlight that the success of this innovation depends heavily on having adequate technological infrastructure, competent healthcare workers, clear regulations, and public awareness. A stable internet network, appropriate hardware and software, and regular training for health professionals are essential to ensure effective telemedicine services. Furthermore, clear legal frameworks that prioritize data protection and consumer rights are vital to building public trust. However, several challenges remain, such as inconsistencies in maintaining service quality standards and low digital literacy among the population.

The implications of these findings suggest that a multisectoral approach is required. Strengthening infrastructure, enhancing training programs, enforcing consumer-oriented regulations, and increasing public socialization are necessary actions. When these efforts are aligned, telemedicine can serve as a sustainable, efficient, and equitable solution for expanding healthcare access, particularly in underserved areas. Despite these positive prospects, this study has some limitations. It primarily focuses on regulatory and implementation factors without deeply analyzing the financial or cost-effectiveness aspects of telemedicine services.

Additionally, the research does not explore regional disparities in infrastructure readiness, which could affect the general applicability of these recommendations. Future research should investigate the economic feasibility and long-term outcomes of telemedicine across diverse regions in Indonesia. It should also assess user satisfaction and health outcomes to measure the real impact of telemedicine in primary care settings. Moreover, studies examining strategies to increase digital literacy and engagement among patients will be crucial to ensuring widespread adoption. With ongoing improvements and evaluations, telemedicine can be a transformative force in Indonesia's healthcare system.

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Ethical approval was obtained for this study. The manuscript represents original work and has not been previously published, nor is it under consideration by another journal.

Data Disclosure Statement
The data that support the findings of this study are available from the corresponding author upon reasonable request.