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Measuring Citizen Satisfaction with The Quality of Telemedicine in Indonesia: A National Survey Through Facebook and Instagram Advertisement

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Kata Kunci
Telemedisin; Transformasi Digital; Tingkat Kepuasan Masyarakat

Abstrak
Telemedisin memanfaatkan teknologi, informasi, dan komunikasi untuk mentransformasi dan merevolusi sistem penyampaian layanan kesehatan secara digital. Digitalisasi dalam layanan kesehatan bertujuan untuk meningkatkan kualitas pelayanan publik, sehingga telemedisin diharapkan dapat menyediakan standar kualitas yang setara dengan metode konvensional. Meskipun telemedisin memiliki potensi untuk merevolusi layanan kesehatan, penting bagi layanan ini untuk memenuhi standar tinggi yang sama dengan praktik tradisional. Pandemi COVID-19 menekankan pentingnya pengukuran yang lebih akurat dalam menilai kepuasan terhadap layanan kesehatan digital. Penelitian ini bertujuan untuk mengevaluasi kepuasan masyarakat Indonesia terhadap telemedisin dengan menggunakan Indikator Kualitas Kesehatan (HCQI) dari Organisation for Economic Co-operation Development, serta indikator tambahan yang relevan di Indonesia, seperti efektivitas, keamanan data, privasi, responsivitas, aksesibilitas, keselamatan psikologis, biaya platform, dan biaya tambahan. Penelitian ini menerapkan desain penelitian kualitatif eksploratif deskriptif, dengan data yang dikumpulkan melalui survei daring yang dipromosikan melalui Facebook dan Instagram, menghasilkan 1.165 respons dalam periode 12 hari. Analisis data dilakukan menggunakan perangkat lunak NVivo 12. Hasil penelitian menunjukkan bahwa layanan telemedisin di Indonesia umumnya dianggap "sukses" dengan tingkat kepuasan rata-rata sebesar 89%. Namun, ditemukan masalah signifikan dalam hal keamanan data dan privasi pasien, dengan tingkat kepuasan di area ini berada di bawah ambang batas kritis sebesar 58,30%. Temuan ini menunjukkan perlunya perbaikan substansial dalam aspek perlindungan data dan privasi untuk lebih memenuhi ekspektasi pengguna.

Keywords
Telemedicine; Digital Transformation; Citizen Satisfaction

Abstract
Telemedicine leverages ICT to digitally transform and revolutionize healthcare delivery systems. The objective of digitizing health services is to enhance the quality of public services. Therefore, telemedicine must provide the same upgraded quality as conventional delivery. Although telemedicine has the potential to revolutionize healthcare, it must deliver the same high standards as traditional methods. The COVID-19 pandemic underscored the need for improved metrics to gauge satisfaction with digital health services. This study evaluates Indonesian citizens' satisfaction with telemedicine using the Healthcare Quality Indicators (HCQI) from the Organisation for Economic Co-operation Development, along with additional indicators relevant to Indonesia, including effectiveness, data security, privacy, responsiveness, accessibility, psychological safety, platform fees, and extra costs. An exploratory, descriptive qualitative research design was employed, with data collected via an online survey promoted through Facebook and Instagram, yielding 1,165 responses over 12 days. The

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analysis was conducted using NVivo 12 software. The results reveal that telemedicine services in Indonesia are generally considered "successful," with an average satisfaction rate of 89%. However, patient data security and privacy were identified as significant concerns, with satisfaction in these areas falling below the critical threshold of 58.30%. This indicates a pressing need for improvements in data protection and privacy to better meet user expectations.

1. Introduction

The dynamics of public needs in the New Public Service paradigm experience many challenges along with changes in the reality and conditions of government bureaucracy. Moreover, New Public Service which was born as the antithesis of New Public Management, promises an alternative to democratic public service delivery. The consequences of implementing this concept require the government to be more open-minded, guarantee public participation, and protect the rights of every citizen for the sake of continuing inclusive governance. New Public Service adopts a bottom-up approach that emphasizes decision-making based on citizen feedback. This becomes the core value of the New Public Service idea by Denhardt and Denhardt (2003).

The digital transformation process in the public sector continues to develop in line with the government's efforts to meet public needs. Since the shift in the responsiveness pattern of public management, the relationship between the public manager and its citizens has now shifted. From just acting as customers or buyers, the New Public Service concept places society as citizens, "serving citizens, not customers" (Denhardt & Denhardt, 2003). This research then places its position on the "Evaluation of Telemedicine Performance Based on Health Service Quality Indicators from the Viewpoint of Service Users."

Telemedicine, a digital product for the healthcare sector, has the potential to revolutionize the delivery of the healthcare system. While telemedicine innovations have only become widespread due to the COVID-19 pandemic, it has been a part of the global healthcare system for a while. The World Health Organization (WHO) defines telemedicine or telehealth as long-distance healthcare services provided by all health professionals using information equipment and communication technology to exchange information, provide treatment, prevent disease and injury, conduct research and evaluation, and educate health service providers (WHO, 2010). According to Waller and Stotler (2018), the scope of telemedicine is generally similar to the definition of medicine and tele, which refers to maintaining health and preventing, reducing, and curing diseases using long-distance technology.

2. Literature Review

Due to strides in medical technology, telemedicine has significant potential to reform the health service system in Indonesia, especially in overcoming inequality in the distribution of health workers and inequality in the development of health facilities. The disparities in the distribution of health resources that have occurred in various regions of Indonesia have happened since the 1990s (Oktaria & Mahendradhata, 2022). According to the Central Statistics Agency (BPS), in 2019, there were 11,365 doctors on duty in Jakarta, 10,802 doctors in East Java, 9,747 doctors in Central Java, 8,771 doctors in West Java, and 3,126 doctors in Banten. Meanwhile, the regions with the fewest number of doctors are Gorontalo, with only 383 doctors; North Kalimantan, with 349 doctors; North Maluku, with 324 doctors; West Sulawesi, with 308 doctors; and West Papua, with 302 doctors. Therefore, more than half of the doctors in Indonesia work on the island of Java.

According to Jayani (2020), Indonesia ranks second lowest among Southeast Asian countries in terms of physician density, surpassed only by Cambodia. Meanwhile, the three countries with the highest ratio of doctors in the ASEAN region are Singapore, with a ratio of 2.3 per 1,000 population; Brunei Darussalam, with a ratio of 1.8 per 1,000 population; and Malaysia, with a ratio of 1.5 per 1,000 population. The number of doctors per population has only reached 4 per 10,000 people, which is still far below the WHO recommendation of 10 per 10,000 or one doctor per 1,000 population in each country.

A health development study by Maryani et al. (2020) shows that the average Healthy Family Indicator in several Eastern Provinces of Indonesia (Maluku, North Maluku, West Papua, and Papua) still needs to be higher. In terms of providing health infrastructure, the construction of health centers, which are still based on the island of Java and large cities in western Indonesia, has yet to prove effective in solving complex problems in the health sector. According to a study by Suparmi et al. (2018), the overall national average Public Health Development Index (PHDI) is 54.0 (out of a possible 100), provinces in the western region of Indonesia tend to have a higher overall PHDI score compared to the eastern region. According to a study conducted by Ariteja (2017), the findings are consistent with the National Development Planning Agency's report. The research shows that the disparity in providing health services is not only limited to the west-east region, but it also exists between urban and rural areas, as well as Java and non-Java provinces.

Despite the rapid advances in telehealth technology in Indonesia, scientific research based on objective guidelines that demonstrate the satisfaction of communities with telemedicine services based on indicators of health service quality is still yet to be found. This paper then takes a position that focuses on

citizen satisfaction evaluation of telemedicine services in Indonesia. The research explores the come-up question: "How is Indonesia's citizen-satisfaction with the quality of telemedicine services based on the Healthcare Quality Indicator?". The healthcare quality indicator introduced by the OECD in 2004 was originally designed to assess the quality of conventional healthcare delivery. It includes health service quality dimensions such as effectiveness, safety, responsiveness, accessibility, and expenditure. However, to ensure a comprehensive evaluation of the telemedicine context, some adjustments to the indicators have been made. These adjustments include new dimensions such as effectiveness, data security and patient privacy, responsiveness, accessibility, psychological safety, platform fees, and additional expenses.

3. Methods

This study used exploratory-descriptive qualitative (EDQ) to explore citizen satisfaction with the quality of telemedicine. EDQ, in its application to the health field, has been recognized as an appropriate theoretical framework for studying areas in healthcare practice that have previously received little or no attention (Sandelowski, 2000).

This research uses a national survey conducted through Facebook and Instagram's advertising services to collect data. The use of social media platforms' advertising services for data collection was to ensure a fair representation of telemedicine users across Indonesia. The study selected a method that randomly distributed the questionnaire link through the Meta platform, which helped eliminate possible bias in obtaining research data and reduced logistics and transportation costs to reach respondents. Additionally, this approach offered real-time reporting, making it easier for researchers to monitor participation and display survey results periodically.

Initially, the study meticulously curated the questionnaire content using a Google Form. The Google Form link was then input on the Meta Manager page, where the desired audience was specified based on their location, age, and other criteria. After completing the verification process, the advertisement will randomly appear on the Facebook and Instagram accounts of the target audience within seconds.

The survey was conducted between March 4 and 16, 2023. On March 17, 2023, the monitoring results via Meta Manager showed that advertisements containing the questionnaire were successfully broadcast 55,514 times on two channels, Facebook and Instagram. Out of the total impressions, the advertisement was seen by 34,383 users on these social media platforms. However, only 1,492

users clicked on the questionnaire link. Not all users who saw the questionnaire advertisement completed the answers, resulting in only 1,234 forms being collected. Out of these forms, only 1,165 answers were processed for the data analysis stage. 65 "defective" data had to be removed to maintain the data's quality for the analysis results later on.

Reorienting the objective of this inquiry, aimed at assessing public satisfaction with the quality of telemedicine services in Indonesia, this research adopted the OECD's health service quality assessment indicators (2006) to scrutinize telemedicine service quality through the prism of user experience. These indicators, introduced by the OECD, encompass dimensions of health service performance, including service quality, accessibility, and healthcare expenditure. Furthermore, success levels were gauged using a digital governance performance threshold as implemented by the Singaporean Government, whereby success was deemed achieved if 75-80% of the populace rated digital service implementation as "very satisfied" (Nation Singapore, 2018). The inevitability of this inquiry arises in the context of benchmarking Singapore. While qualitative judgements are inevitable, some foreign scholars have acknowledged Singapore as a global leader in e-Government (Mahizhnan & Andiappan, 2002). Singapore is often referred to as an experimental hub for ICT and a socio-political laboratory owing to its government's proactive stance and adeptness in implementing innovative, albeit occasionally controversial, public administrative practices.

Table 1.
List of Survey Questions

Indicators	Close-Ended	Open-Ended
Service Effectiveness	Did telemedicine services help/make it easier for you to access healthcare?	What do you think of the aspects of convenience and speed when accessing telemedicine services?
Data Security and Patient Privacy	Were you aware of the risk of personal data leakage (such as medical records, transaction history, personal data, etc.) when accessing telemedicine services?	What do you think of the security and confidentiality aspects of patient data (such as medical records, transaction history, personal data, etc.)

		when accessing telemedicine services?
Service Provider's Responsivenesss	Did the telemedicine doctor provide responsive and appropriate services to your health complaints?	What do you think of the responsiveness aspect of online doctors when dealing with your health condition?
Service Accessibility	Did the features designed by telemedicine service developers easily accessible and user-friendly for people with disabilities?	What do you think of the accessibility aspect of telemedicine services?
Other Expenses	Did the expenses/costs outside the service fee before accessing telemedicine services affordable (e.g.: internet quota, mobile phone connected to the internet, and stable signal, or skills in operating telemedicine features)?	What do you think of expenses/costs outside of service rates in accessing telemedicine (for example: internet quota, connected to the internet, and a stable signal, or skills in operating features on telemedicine applications)?
Psychological Safety	Did the telemedicine service give you a feeling of safe, comfort, and trust when interacting with doctors online?	How do you describe the dominant feelings when you consult a doctor online?
Platform Fees	Did the costs of medical treatment via telemedicine services likely to be cheaper than visiting a conventional health facility (making an	How is your personal experience regarding the overall costs incurred when seeking treatment through telemedicine services?

	appointment to see a doctor at a hospital/health clinic)?

Source: Author's Summary from Previous Study

In this research, data collected in the Spreadsheet was then analyzed using NVivo 12 software. Thematic analysis is designed to uncover people's views, opinions, knowledge, and experiences from qualitative data collection, such as interview transcripts, social media profiles, or surveys (Caulfield, 2019). This method identified common themes in data based on the Healthcare Quality Indicator– effectiveness, data security and patient privacy, responsiveness, accessibility, psychological safety, platform fees, and additional expenses. The themes were then classified into "nodes" for analysis. I used the "query" function to process the data and determine the frequency of words. The most frequently used words were visualized for further analysis. The results were then presented in a word cloud, where the size of the word indicates its frequency in the analyzed data. In addition to word cloud analysis, the researcher utilized the pivot feature in Microsoft Excel to compare the number of users and non-users who responded. This aimed to compare each group of respondents based on their domicile, age group, monthly income, and education level.

4. Results

The research findings were graphically visualized based on the survey assessing citizen satisfaction regarding the quality of telemedicine services in Indonesia. The summarized survey results, gathered over a 12-day period using Facebook and Instagram Ads, encompassed data from 1,165 respondents, inclusive of both users and non-users of telemedicine services across Indonesia.

Chart 1.
Survey Result on Citizen-Satisfaction of Telemedicine Quality in Indonesia between March 4 to 16, 2023

Source: Researcher's Survey Results, 2023

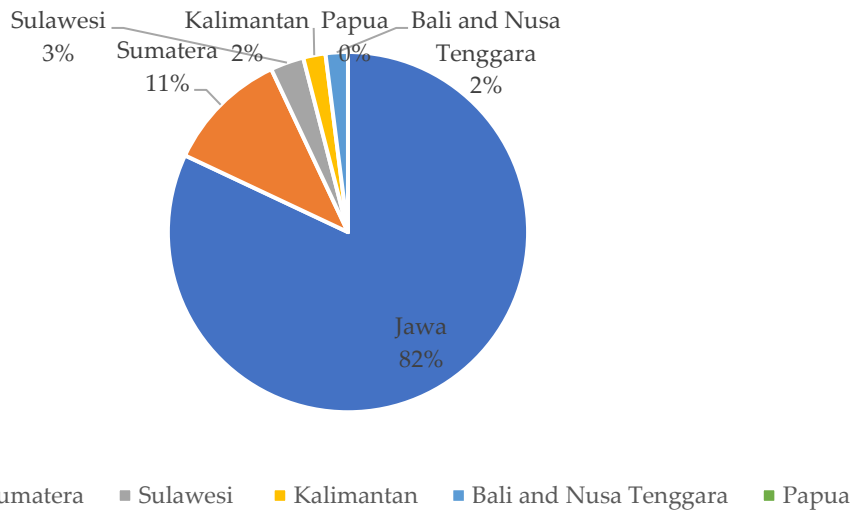
The bar chart presented above shows the results of a survey conducted over 12 days between March 4th to 16th 2023, on the level of satisfaction of Indonesian citizens with the quality of telemedicine services, based on the Healthcare Quality Indicator. There were seven evaluation indicators, the most striking result to emerge from the data is that "data security and patient privacy" fails to reach the threshold. The category of "effectiveness" had the highest rank with a score of 99.30%, followed by "responsiveness" at around 97.80%, "psychological safety" reached 97.70%, "additional expenses" with the total percentage at 96.10%, and "accessibility" stood at 90.20%. Although the percentage for "platform fees" has already exceeded the threshold (84.40%), it is worth noting that the assessment of telemedicine service fees deserves attention as its achievement ranked the second-lowest among the indicators. Overall, the survey indicates that the quality of telemedicine in Indonesia performed successfully, with an average citizen satisfaction rate of approximately 89%.

5. Discussion

Digital Divide Phenomena Among Telemedicine Users

The current potential of telemedicine to revolutionize the delivery of the healthcare system must grapple with the perennial challenge of digital infrastructure development, namely the internet access gap. This research succeeded in showing a digital divide phenomenon among telemedicine service users in Indonesia.

Chart 2.
Respondent Domicile

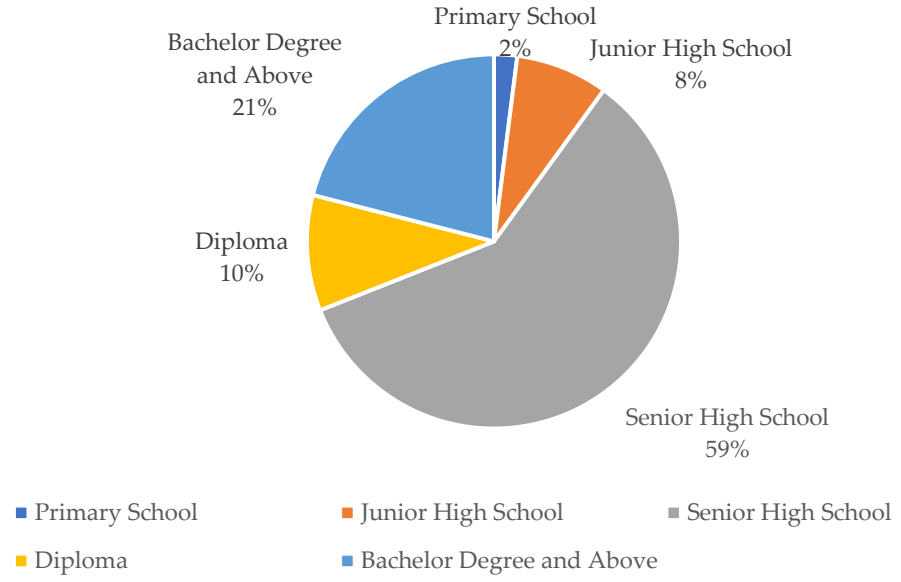


Source: Researcher's Survey Results, 2023

The pie chart above illustrates an uneven spread of respondent domicile across islands in Indonesia. Dominating numbers come from Java, which represents around 82% of the respondents, followed by Sumatera, Sulawesi, Kalimantan, Bali and Nusa Tenggara which captured only a small portion, at 11%, 3%, 2%, and 2% respectively. Interestingly, none of the participants of this survey originated from Papua.

The implementation of telemedicine as a form of digital public service requires internetworking to accommodate aspirations and deliver services to the community. Unfortunately, the digital divide in society, caused by limited internet infrastructure, failed to be properly addressed due to high levels of social inequality. The lack of internet infrastructure development in rural and eastern parts of Indonesia is hindering community engagement with digital public services. According to Kartiasih et al. (2022), a pronounced district-level digital divide manifesting in a gradient of declining Regional Digital Development Index (RDDI) values from west to east and from central urban areas to peripheral ones. Municipalities exhibiting high RDDI values are predominantly clustered in major metropolitan centres across western Indonesia, while districts with lower values are concentrated in rural-mountainous terrain, remote locales, and archipelagic regions in eastern Indonesia. This research underscores the spatial inequalities in access to telemedicine service across the nation, particularly notable due to the predominant representation of participants from Java Island.

Chart 3.
Respondent Education Attainment



Source: Researchers' Survey Results, 2023

Chart 3 shows the percentage of the educational background of the survey respondents. The graph indicates the majority of them have attended senior high school, while 21% are from those who have attained a bachelor's degree and above, and a diploma at around 10%. The other 10% comes from those who passed junior high school (8%) and only 2% finished primary school.

Specific data pertaining to respondents' educational backgrounds gathered during the survey has yielded a novel insight: a significant majority of participants have completed high school. This observation underscores the established correlation between educational attainment and proficiency in digital skills. It causes an unequal position in terms of utilizing sophisticated internet technology in society. The challenge of the digital divide is more than just the availability of information and communication technology infrastructure but also the digital literacy of people in developing countries (Nurbani et al., 2019). It can be seen in Chart 3 how the level of education contributes to people's skills in using sophisticated technological features, at least they come from groups who have completed final level education (high school/equivalent) and so on. In this way, this research directly confirms what has been stated by Van Dijk (2012) that low levels of education, or what he calls "positional inequality", have contributed directly to the digital divide. Besides that, Puspitasari & Ishii (2016) added that the use of mobile internet via smartphones is only used by a handful of groups, namely younger and more educated people.

Skepticism on the Data Security and Privacy

This research proves that only 58.30% of respondents who used digital health features felt confident about the confidentiality of data managed by telemedicine service developers. This figure is lower than the threshold for user satisfaction with digital public services, which targets at least 75-80%. The research findings with the sub-theme "data security" basically bring up the discussion on the lack of public trust in guaranteeing the confidentiality of patient data and the question of comprehensive telemedicine regulations. Also, this finding has become a concern in the study of Chan et al. (2021), who emphasize the importance of privacy protection and security protection in e-government services.

As the use of digital technology increases, health sector platforms such as the telemedicine ecosystem must be able to protect users and providers of telemedicine services, so the rights and obligations of each party are mutually fulfilled. This is directly related to the legal aspects and principles of legal protection in the implementation of telemedicine in Indonesia. Act No. 29 of 2004 concerning medical practice only regulates strict sanctions against doctors who leak patient data. Unfortunately, this provision does not directly bind online doctors if

the data leak comes from a telemedicine application, even though information transactions in the digital public service ecosystem such as telemedicine are vulnerable to deliberate misuse and commercialization. Emergency conditions in providing online health services require stakeholders to immediately formulate special regulations for the protection of telemedicine patient data in order to minimize patient data privacy violations.

The lack of comprehensive data privacy laws has notably diminished Indonesia's potential to lead in the global cost-effective healthcare market (telemedicine). Furthermore, it has a direct impact on the increasing violations of individual constitutional rights. This also emphasizes the important role of the state in ensuring the fulfilment of the interests of both individuals and the state regarding the use of personal data and securing personal data held by government or state agencies. Therefore, this approach can reduce the occurrence of privacy violations due to cybercrime, including those triggered by illegal exploitation of personal data.

The Use of Facebook and Instagram Ads for Policy Evaluation

This research sought to answer the lingering question of "Why should we measure government performance?" prevalent in the study of public administration. Behn (2003) tried to mediate the differences in the discourse with an ultimate question – "What is the actual goal to be achieved by measuring performance?". He divided it into 8 goals, including evaluation, control, budgeting, motivation, promotion, celebration, learning, and improvement. Yet, evaluation is the main objective in measuring performance - how well is the performance of a public agency or organization?

Evaluation is an essential phase in improving the quality of a policy. Since the late 1980s, time-difference methods have been the preferred choice in this research field due to their data efficiency. However, some fundamental issues such as ensuring stability in off-policy scenarios, improving sample efficiency, and incorporating probabilistic estimation of uncertainty have only recently been addressed. This has led to the development of many new approaches.

In this digital era, technology has provided researchers with an easier way to collect data. One such alternative is to gather information and feedback from the public through Facebook and Instagram advertising. According to the Indonesian data portal managed by the Bisnis Indonesia Resource Center (BIRC), active Instagram users in Indonesia reached 99.9 million as of April 2022, while Facebook users in Indonesia were around 129.85 million as of January 2022. This method of research is cost-effective as logistics and transportation costs to reach respondents

are eliminated. Additionally, this tool provides real-time reporting, making it easier for researchers to monitor the number of respondents participating and display survey results periodically.

Feedback can serve as a foundation for enhancing innovation in the public sector. This approach helps researchers and the government to produce public evidence-based or data-driven policies. This encourages the government or policymakers to foster innovation based on public preferences by practicing the values of democratic and public-participatory principles. Building empowered citizens in a digital government ecosystem such as telemedicine requires obtaining organic information from the citizen-satisfaction with the quality of services provided, which is a fundamental step for continuous improvement.

6. Conclusion

This study set out to measure Indonesia's citizen satisfaction with the quality of telemedicine services based on the Health Care Quality Indicator. The research used primary data from an online survey through Facebook and Instagram advertisements by distributing an online questionnaire from March 4 to 16, 2023. This study has shown that the quality of telemedicine in Indonesia performed successfully, with an average citizen satisfaction rate of approximately 89%. There were seven evaluation indicators, the most striking result to emerge from the data is that "data security and patient privacy" fails to reach the threshold. The category of "effectiveness" had the highest rank with a score of 99.30%, followed by "responsiveness" at around 97.80%, "psychological safety" reached 97.70%, "additional expenses" with the total percentage at 96.10%, and "accessibility" stood at 90.20%. Although the percentage for "platform fees" has already exceeded the threshold (84.40%), it is worth noting that the assessment of telemedicine service fees deserves attention as its achievement ranked the second-lowest among the indicators.

The research discovered that there was a digital divide phenomenon among telemedicine service users in Indonesia. It highlights the problem of uneven access to technology across the country. The potential of telemedicine to revolutionize the delivery of the healthcare system must grapple with the perennial challenge of digital infrastructure development, namely the internet access gap. This research succeeded in showing a digital divide phenomenon among telemedicine service users in Indonesia.

The second major finding was that the absence of comprehensive legal provisions to regulate the protection of personal data privacy caused skepticism about data security and patient privacy. Practically, it has had several negative

consequences, one of the most significant is the erosion of Indonesia's potential to dominate the global health market in the category of cost-effective patient healthcare (telemedicine). Furthermore, it has a direct impact on the increasing violations of individual constitutional rights. This also emphasizes the important role of the state in ensuring the fulfilments of the interests of both individuals and the state regarding the use of personal data and securing personal data held by government or state agencies. Therefore, this approach can reduce the occurrence of privacy violations due to cybercrime, including those triggered by illegal exploitation of personal data.

The survey has also shown that Facebook and Instagram advertisement provides an alternative to gathering information and feedback from the public. This tool provides real-time reporting, making it easier for researchers to monitor the number of respondents participating and display survey results periodically. Feedback can serve as a foundation for enhancing innovation in the public sector. This approach helps researchers and the government to produce public evidence-based or data-driven policies.

There is abundant room for further progress in upgrading telemedicine service. Further studies, which takes interdisciplinary collaboration among public health, information technology, and public policy domains will need to be undertaken. This approach should incorporate the eight core principles of digital transformation in public health as delineated by Pan American Health Organization (PAHO). Such a synergistic effort is expected to optimize the effectiveness and efficiency of telemedicine systems, thereby maximizing their benefit to the Indonesian population.

References

Ariteja, S. (2017). Demographic Bonus for Indonesia: Challenges and Policy Implications of Promoting Universal Health Coverage. Jurnal Perencanaan Pembangunan: The Indonesian Journal of Development Planning, 1(3), 265-274.

Behn, R. D. (2003). Why measure performance? Different purposes require different measures. *Public administration review*, *63*(5), 586-606.

Caulfield, J. (2019). How to do thematic analysis| A step-by-step guide & examples. Published on, 6.

Chan, F. K., Thong, J. Y., Brown, S. A., & Venkatesh, V. (2021). Service design and citizen satisfaction with e-government services: a multidimensional perspective Public Administration Review, 81(5), 874-894.

Denhardt, R. B., & Denhardt, J. V. (2003). The new public service: An approach to reform. International Review of Public Administration, 8(1), 3-10.

Jayani, D. H. (2020, April 2). Rasio Dokter Indonesia Terendah Kedua di Asia Tenggara. Databoks. Retrieved August 12, 2024, from https://databoks.katadata.co.id/datapublish/2020/04/02/rasio-dokter-indonesia-terendah-kedua-di-asia-tenggara

Mahizhnan, A., & Andiappan, N. (2002). E-government: the Singapore. *Tamil Internet, California, USA*, 252-259.

Maryani, H., Kristiana, L., Paramita, A., & Izza, N. (2020). Disparity of Health Development in Indonesia Based on Healthy Family Indicators Using Cluster Analysis. Buletin Penelitian Sistem Kesehatan, 23(No. 1 Januari 2020), 18–27. 10.22435/hsr.v23i1.2622

Nurbani, K., & Meiyanti, F. (2019). The Impact of System Quality and Information Quality on User Satisfaction and User Performance. *Jurnal Akuntansi, Manajemen dan Ekonomi*, *21*(2).

Oktaria, V., & Mahendradhata, Y. (2022). The health status of Indonesia's provinces: the double burden of diseases and inequality gap. The Lancet Global Health, 10(11)(2022), e1547- e1548.

Puspitasari, L., & Ishii, K. (2016). Digital divides and mobile Internet in Indonesia: Impact of smartphones. Telematics and Informatics, 33(2), 472-483.

Sandelowski, M. (2000). Whatever happened to qualitative description?. Research in nursing & health, 23(4), 334-340.

Suparmi, Kusumawardani, N., Nambiar, D., Trihono, & Hosseinpoor, A. R. (2018). Subnational regional inequality in the public health development index in Indonesia. Global Health Action, 11(sup1), 41-53.

Van Dijk, J. A. (2012). The evolution of the digital divide-the digital divide turns to inequality of skills and usage. In Digital enlightenment year book 2012 (pp. 57-75). IOS Press.

Waller, M., & Stotler, C. (2018). Telemedicine: a primer. *Current allergy and asthma reports*, *18*, 1-9.