

SMART LIVING CIAMIS DISTRICT HEALTH OFFICE

Syara Purnamasari^{1)*}, Arie Budiawan¹⁾, Kiki Endah¹⁾

Universitas Galuh Ciamis, Indonesia¹⁾

*Email: aribudiawan@unigal.ac.id. **

Article History

Received: 30 July 2024

Accepted: 12 August 2024

Published: 31 August 2024

Abstract

The application of the smart living concept by the Ciamis Regency Health Office in encouraging healthy living behavior of the community, as well as structuring the ecosystem of living places that support the quality of life of the community. This study aims to analyze how the Ciamis Regency Health Office applies the smart living concept in an effort to encourage healthy living behaviors in the community. The research method uses a qualitative approach with data collection techniques of observation, in-depth interviews, and document studies of programs and policies related to the implementation of smart living. The results showed that the Ciamis Regency Health Office has implemented several information technology-based initiatives in order to encourage healthy lifestyles in the community through health information outreach and community self health monitoring applications that will be published in 2024 now. However, the integration and synchronization of cross-sectoral regulations and data related to smart living are considered still lacking and not optimal. The policy recommendations given are the need to strengthen regulations and institutions to support the implementation of smart living in the health sector in Ciamis Regency.

Keywords: Ciamis District Health Office , Community Quality of Life, Health, Smart Living,.

A. INTRODUCTION

The concept of smart living is now popular in many parts of the world, including Indonesia. Smart living is a living concept that utilizes smart technology to improve efficiency, productivity, and a better quality of life. In the health sector, the application of smart living is aimed at encouraging people's healthy living behavior through the use of information and communication technology (ICT). (Ministry of Home Affairs of the Republic of Indonesia, 2021).

Ciamis Regency is one of the regencies in West Java Province that is aggressively making various smart breakthroughs in various development sectors including health. Since 2021, the Ciamis Regency Health Office has launched Healthy Smart Ciamis 2021-2025 which aims to implement the concept of smart living and smart health to improve public health status. (Dinas Kominfo Kabupaten Ciamis, 2021).

The Ciamis District Health Office has formulated the Ciamis Health Data Service (CHDS). CHDS is the development of the Generic SIKDA application from the ministry of health which was originally used for the Health Service Information System at the puskesmas, into the Ciamis District Health Office Information System by completing and integrating it with other health data reporting applications and health service applications at

other health facilities so that it becomes the Ciamis District Health Information System. (Ciamis District Health Office, 2023).

Still in step 4, namely Innovation and its supporting components are still in the development stage which has only been completed 20% because it still needs supporting infrastructure and application development so as to produce data/report outputs as needed. (Ciamis District Health Office, 2023).

Nevertheless, efforts to implement smart living in Ciamis Regency are also not free from various challenges. The main challenge lies in the lack of ICT infrastructure that has not been evenly distributed to the diverse levels of digital literacy of the community, data input compliance affects the availability of data and information, honesty and prudence in data input affect data quality, and the security of patient personal data. Therefore, business model innovation and multi-party partnerships are a necessity. (Ciamis District Health Office, 2023).

To answer the challenges and ensure the achievement of targets, a collaborative governance model through one data policy and one monitoring system is key. Thus, it is expected that various priority programs related to smart living can be implemented in an integrated, effective and efficient manner with sustainable results. (Jannah, 2021).

As one of the pilot districts, the implementation of smart living in Ciamis Regency certainly provides valuable learning for other regions that want to implement a similar concept. With these initial achievements, in the future the Ciamis Regency Health Office is determined to continue to improve the quality and scope of smart living implementation. The hope is that all levels of Ciamis society can enjoy improved quality of life and welfare through a variety of ICT-based smart breakthroughs. Of course, this is in line with the vision of Ciamis Regency towards a just, prosperous and prosperous society. (Dinas Kominfo, 2021).

B. LITERATURE REVIEW

The smart living concept is an urban planning approach that prioritizes the use of smart technology to improve the efficiency of various city systems and the quality of life of citizens is a key component of smart city initiatives (Ministry of PPN, 2021: 51). This concept covers various sectors including health, where its application is aimed at encouraging people's healthy living behavior through optimizing the use of information and communication technology or ICT (Anggadwita, 2020). The digital transformation of health services has significantly enhanced healthcare delivery and accessibility, particularly during the COVID-19 pandemic (Rohmah, Rachmawati, & Mei, 2023). In addition, smart government frameworks that integrate AI and big data analytics play a critical role in ensuring the efficiency of digital health services (Aryanto, Mabruk, & Narendroputro, 2023).

Several cities in Indonesia such as Jakarta, Bandung, and Surabaya have implemented smart cities in various sectors including health in the form of smart health and smart living programs. Priority programs include smart hospitals, telemedicine, integrated health information systems, and health tracking systems (Muliawan, 2021; Alamsyah, 2022). These programs have proven to be able to improve access and quality of health services for citizens. The success of smart city programs, particularly in the health sector, depends on strong governance and infrastructure support (Sulistyaningsih, Purnama, & Kulsum, 2023). The application of smart city principles in healthcare, including digital health platforms, has shown significant improvements in service efficiency and patient management (Aryanto dkk., 2023). Additionally, the integration of universal health coverage within smart city health programs is crucial for ensuring equitable access to digital health services (Judijanto, Dimas, Santosa, & Nastiar, 2025).

At the district level, the implementation of smart cities and smart living in the health sector is also being promoted. One of them is by the Ciamis Regency Government through the Ciamis Regency Health Office. Since 2021, the Ciamis Health Office has initiated the Ciamis Health Data Service (CHDS). Ciamis Sehat Cerdas 2021-2025 which aims to encourage the creation of a smart health ecosystem through optimizing the use of ICT (Dinkes Ciamis, 2021). These efforts align with broader national policies to integrate smart governance into healthcare services (Rachmawati, Haryono, & Rohmah, 2021). The implementation of digital health initiatives in smart cities is also closely linked to ensuring public mental health, as digital systems enable better monitoring and intervention strategies (Rahvy, Habsy, & Ridlo, 2020).

Several priority flagship programs related to the implementation of smart living have been implemented, including the use of sensors and tracing for environmental and air quality monitoring as well as the use of analytical dashboards and digital applications related to literacy and clean and healthy living behavior of the community (Kominfo Ciamis, 2022). These programs are expected to increase awareness and change the behavior of the Ciamis community in maintaining health independently. The role of ICT-based applications in supporting smart city programs has been increasingly recognized as crucial, especially in response to public health emergencies (Perdana, Adhasari, & Mahadewi, 2022). The adoption of digital health services has also been instrumental in promoting preventative healthcare measures and real-time monitoring (Rohmah dkk., 2023). Furthermore, smart health policies must address gender disparities to ensure inclusivity in healthcare access within smart cities (Wahyudi & Elanda, 2023).

However, the implementation of smart living is also inseparable from various classic challenges related to aspects of governance, funding, human resources, and suboptimal regional ICT infrastructure (Maryani & Dartanto, 2021). Therefore, partnerships with various private parties and communities as well as optimizing community participation are key to the sustainability of the program. Infrastructure improvements and stakeholder collaboration are essential in addressing these challenges and ensuring long-term success ((Judijanto dkk., 2025) In addition, integrating public participation and inclusive governance models enhances the resilience and adaptability of smart city programs (Anwar, Budiawan, & Vestikowati, 2024).

C. RESEARCH METHODOLOGY

This research uses a descriptive qualitative approach with a case study design to analyze the application of the smart living concept by the Ciamis Regency Health Office. Data collection techniques were carried out through direct observation, in-depth interviews, and document studies related to the policies and priority programs of the Ciamis Health Office related to smart living. Field observations were conducted on the implementation of smart living flagship programs such as analytical dashboards, air quality sensors and health tracking systems. The aspects observed were the work mechanism, program interface, and the level of adoption and utilization by the community. Meanwhile, in-depth interviews were conducted with several informants consisting of Ciamis Health Office officials and health practitioners. The interviews aimed to obtain in-depth information related to the planning and challenges of smart living implementation. Additional data and information were obtained through the review of planning documents, reports and related regulations. Data analysis used the Miles and Huberman interactive model through the stages of data reduction, data presentation, verification to drawing conclusions and recommendations.

D. RESULTS AND DISCUSSION

Understanding the concept of *Smart Living*

Smart living is a concept that utilizes digital and information technology to improve efficiency, productivity, and comfort in everyday life. The essence of smart living is the application of automation and connectivity to products and services so that they can be connected and controlled intelligently (Lee & Lee, 2014).

The application of smart living in the health sector aims to improve the quality of life and make it easier for people to access health services. This is done by integrating smart technology into the health system, from health promotion, service facilities to monitoring individual health conditions. (Ratri, 2018; Anggadwita, 2020).

Some technological solutions that can be applied to realize smart living in the health sector include biomedical sensors and devices, information systems and electronic medical records, telemedicine, to health mobile applications connected to the Internet of Things (IoT). (Effendi, 2017; Ismail, 2018).

Biomedical sensors and devices such as wearable devices enable continuous monitoring of a person's health condition and physical activity. This data can be analyzed to provide recommendations for improving a healthier lifestyle.

Electronic medical records and information systems integrate and analyze patient health data to facilitate proper and efficient diagnosis and treatment. This digital platform also facilitates collaboration and coordination between facilities and medical personnel.

Telemedicine and virtual consultations utilize internet connectivity for remote consultation services, health monitoring and electronic prescription delivery. This facilitates access to health services without being limited by location and time.

Meanwhile, various mobile health applications connected to the IoT ecosystem enable device automation, medication reminders, and early detection of various health risks based on patient data input.

The implementation of smart living certainly requires the synergy of multiple parties including the government and corporations. The government plays a role in providing supporting regulations and policies and facilitating collaboration in the digital health ecosystem. Meanwhile, corporations can provide various artificial intelligence technology solutions for *smart living* implementation.

With the application of these various concepts and solutions, it is expected to realize a more proactive and optimal health system transformation in improving the health status of the community. Of course, challenges related to user data privacy, system security and inequality of access to technology need to be a concern for policy makers in the implementation of *smart living* health in the future. (Anggadwita, 2020).

Context Analysis of *Smart Living* at the Ciamis Regency Health Office

Ciamis Regency has made the latest breakthrough in its smart living program, namely the Ciamis Health Data Service (CHDS). CHDS is the development of the Generic SIKDA application from the ministry of health which was originally used for the Health Service Information System at the puskesmas, to become the information system of the Ciamis District Health Office by completing and integrating it with other health data reporting applications and health service applications at other health facilities so that it becomes the Ciamis District Health Information System.

The purpose of this integrated Health Information System application is to integrate all health information systems or applications in Ciamis Regency for the welfare of the local community in health. The benefits of this innovation are to improve the quality of health services to the community, facilitate access to health services, facilitate the collection and management of health data and information so as to create data-based policy making. The Ciamis District Health Office also collaborates and cooperates with several related parties such as BPJS, government-owned and private/ individual health facilities.

However, there are still several problems, including the lack of availability of health data in Ciamis Regency, which has not met expectations because there is no integrated health information system available and in accordance with the needs, quality data and information should be available, sustainable, and easily accessible. This happens because the implementation of the Ciamis District health information system has not been managed in an integrated manner. On the other hand, there are also several other threats or challenges such as:

- a. Application implementation requires significant investment in terms of hardware, software, training, and technical support.
- b. Changes in health regulations or policies may affect the compliance and effectiveness of the app.
- c. The rapid development of technology can make apps outdated if not updated regularly.

Its current status is still at step 4, namely Innovation and its supporting components are still in the development stage which has only been completed 20% because it still needs supporting infrastructure and application development so as to produce data/report outputs as needed. The potential for further development is to be developed as one data in the health sector of Ciamis Regency and can be integrated with One Healthy or One Data.

In this case, the Ciamis District Health Office also carries out strategies in maintaining the sustainability of CHDS, including:

- a. Ensure that there is a benefit effect of improving the quality of health services for the community
- b. There is mutual support and commitment from regional officials and community leaders.

There are also several strategies according to SWOT Analysis as follows:

- a. Power
 - 1) The use of applications can reduce administration time, improve work efficiency, and minimize errors in data recording.
 - 2) The use of Apps can improve the health services provided to the Community (doctor appointments, queue management, medication reminders).
- b. Weaknesses
 - 1) Limited knowledge in using the app can hinder the full implementation of the app.
 - 2) Unstable or slow communication networks can hinder access and effective use of the app.
- c. Opportunities
 - 1) The App can easily share data and collaborate with other healthcare providers, such as hospitals and health offices.
 - 2) The Health Office can easily obtain integrated health data to enable better analysis for data-driven decision-making.
- d. Threat
 - 1) Application implementation requires significant investment in terms of hardware, software, training, and technical support.
 - 2) Changes in health regulations or policies may affect compliance and effectiveness of the app
 - 3) The rapid development of technology can make apps outdated if not updated regularly.

There are also some other strategies as follows:

- a. Opportunities and Strengths Strategy

- 1) Effectively communicate the benefits of the App to staff, patients and other stakeholders to build awareness and support for implementation
- 2) Building an organizational culture that is proactive to change, open communication, and active participation.
- 3) Establish cooperation with other health facilities
- b. Weakness and Opportunity Strategies
 - 1) Conduct training on the use of the app and create a clear and easily accessible usage guide.
 - 2) Established an internal team tasked with continuously developing knowledge and skills to develop new relevant features.
 - 3) Build partnerships with Diskominfo that can assist in improving network quality.
 - 4) Threats and Strengths Strategy
 - 5) Allocate sufficient budget to improve the technology infrastructure of health centers
 - 6) Keep abreast of developments and changes in healthcare regulations to ensure application compliance with applicable standards and policies.
 - 7) Extending app access to mobile platforms can improve convenience and accessibility for users.
- c. Weakness and Threat Strategies
 - 1) Evaluate application performance periodically and make adjustments if necessary
 - 2) Receive input and feedback from users to identify problems and make improvements
 - 3) Provide support and shared commitment from district officials and community leaders.

Smart Health Technology

Smart health technology is the application of various smart technologies to optimize health systems and community services. In the era of the industrial revolution 4.0, the use of technology is a necessity for various sectors including health in improving the quality of life of the community (Ratri, 2020).

One of the districts that is aggressively implementing smart health is Tasikmalaya Regency. Through the Ciamis District Health Office, the local government is carrying out various priority initiatives related to the implementation of smart living and smart health to create a smart health ecosystem in Ciamis (Dinkes Ciamis, 2021).

Some of the excellent programs being implemented include the Health Data Service (CHDS) which integrates patient medical data, an integrated hospital management information system that facilitates administration and referral between health facilities, and the use of digital applications by regional epidemiological surveillance officers (Ratri, 2022).

Other programs include the use of sensors and tracing for air quality and environmental monitoring, digital analytics dashboards, virtual reality (VR)-based health education portals, and health trackers for the elderly and patients integrated with the CHDS system (Effendi, 2020). With these various initiatives, it is hoped that it can bring access to health services closer while encouraging community participation in maintaining independent health.

However, efforts to implement smart health and smart living also face several challenges such as the lack of human resources who master technology, budget limitations, and uneven ICT infrastructure throughout the Ciamis Regency area (Ismail, 2019). Therefore, partnerships with various private parties and communities are key so that the utilization of smart health technology can take place in a sustainable and comprehensive manner.

Data Security and Privacy

<http://jurnaldialektika.com/>

Publisher: Perkumpulan Ilmuwan Administrasi Negara Indonesia

P-ISSN: 1412 -9736

E-ISSN: 2828-545X

Data security and privacy aspects are critical factors that need to be considered in the implementation of smart technology solutions in the health sector, especially related to the patient's electronic medical record system (Anggadwita, 2020). Health data is very sensitive and if exposed, it risks violating privacy rights and potential misuse of information. Therefore, health service providers must prioritize aspects of securing patient data in implementing smart healthcare.

There are several risk analyses on data security and privacy including:

- a. Data Input Compliance affects the availability of data and information.
- b. The honesty and care with which data is input affects the quality of the data.
- c. Security of patients' personal data.

Some steps that can be taken to protect and maintain the security of patients' personal data include data encryption, limited access rights management, secure infrastructure, and legal/regulatory privacy guarantees (Nugroho, 2020).

Data encryption is a technique for securing data using a certain password/code so that it is not easily read by unauthorized parties. Encryption can prevent data theft if the system is hacked or vulnerable to data breach (Hadiyono, 2019). Digital patient health data should always be encrypted including during storage and transfer on the network.

Implementation of tiered access rights management needs to be implemented to limit staff/employees in accessing data according to their needs and work roles. Only authorized personnel can access certain data to avoid misuse.

The implementation of a specially designed and secured health information system infrastructure is also crucial. Infrastructure needs to be managed on an ongoing basis for the prevention of cyber intrusions, with daily monitoring of network and system activity.

The regulatory aspect is also important to provide a legal basis and guarantee compliance with the patient's right to privacy through valid consent when using their personal data for the purposes of treatment and health services. This rule binds all parties who manage patient health data.

Through the implementation of various policies and solutions above, it is hoped that personal data and patient privacy will remain protected and safe, so that smart health technology can provide optimal benefits for all parties.

Impact Evaluation of Smart Living in Ciamis District Office

The Smart Living Program is an information and communication technology-based urban development program launched by the Ciamis Regency Government to improve the quality of life of the community. One of the priority areas in this program is the health sector. To evaluate the success of the program in achieving its goals, it is necessary to formulate appropriate performance indicators and conduct periodic evaluations.

The performance indicators of the Smart Living program in the health sector can be viewed from various aspects. First, the availability of adequate health facilities. Indicators that can be used include the number of health centers, hospitals, posyandu, and other health facilities per 1000 population, as well as the level of completeness of equipment and medicines at health facilities. Second, the access and quality of health services. Some indicators that can be measured are travel time to the nearest health facility, community satisfaction with health services, and the ratio of medical personnel per population (Ministry of Home Affairs, 2018: 44).

Third is the aspect of public health, which includes indicators of life expectancy, infant mortality, prevalence of infectious and non-communicable diseases, and community nutritional status. The fourth is the aspect of clean and healthy living behavior, which can be measured through a survey of PHBS indicators in families. Finally, indicators are also needed to assess the application of information technology in the health sector such as online-based health information systems, mobile health applications, to telemedicine and the use of AI.

To evaluate the impact of the program in the short and long term, it is necessary to regularly monitor and measure performance indicators. Short-term evaluations can be conducted every 6 or 12 months while long-term evaluations are conducted every 2 or 5 years. Evaluation methods that can be used include surveys, interviews, observations, and review of secondary data from the health office and related agencies. Surveys can involve the general public, medical personnel, health department employees, academics and experts to get broad input. (Hasni Z, 2020).

The evaluation results are then used to make adjustments and improvements to the program. If the achievement of performance indicators is far from the target, it is necessary to analyze the root of the problem whether related to planning, implementation, or external factors so that it can be followed up immediately. Similarly, if gaps are found in the application of information technology in the health sector, they can be improved. With continuous evaluation and improvement, it is hoped that the Smart Living program can improve public health status and realize Ciamis Regency as a smart and quality urban area. (Indonesian Minister of Health, 2019).

E. CONCLUSION

The smart living concept is an urban planning approach that prioritizes the use of smart technology to improve the quality of life of city residents. Its application in the health sector is aimed at encouraging the realization of a healthy and happy society through the optimization of information and communication technology or ICT.

Ciamis Regency is one of the regencies that implements the concept of smart city and smart living in West Java through the flagship program Ciamis Sehat Cerdas 2021-2025. This program aims to create a smart health ecosystem in Ciamis by implementing various smart technology innovations to bring access to health services closer while increasing public awareness of healthy living.

Some priority programs related to the implementation of smart living in health that are being implemented include CHDS. However, significant challenges are also faced regarding the limited supporting resources such as budget, human resources, and regional ICT infrastructure in implementing smart living. Therefore, partnerships with various parties are a necessity so that the utilization of smart health technology can be sustainable and provide optimal benefits for the entire community.

Overall, the efforts to implement smart living in the health sector initiated by the Ciamis Regency Government through the Health Office should be appreciated. Although it is still in the process of perfecting various challenges, priority flagship programs related to smart living in health in Ciamis can become a role model for other districts that want to implement a similar concept. Of course, with the strengthening of collaboration and sustainable business model innovation.

REFERENCE

- Anggadwita, G. (2020). Smart City Development Strategy in Improving Smart Environment. *Journal of Urban and Regional Planning*, 31(3), 215-229. <https://doi.org/10.5614/jrcp.2020.31.3.4>
- Anwar, A. N. R., Budiawan, A., & Vestikowati, E. (2024). Implementation of Regional Government Policy in Improving Sustainable Tourism Development in Ciamis District. *Jurnal Dialektika: Jurnal Ilmu Sosial*, 22(3), 19-32. <https://doi.org/10.54783/dialektika.v22i2.301>

- Aryanto, E., Mabruk, H., & Narendroputro, W. (2023). Artificial Intelligence Implementation Strategy to Make It Happen Smart Government Indonesia Gold 2045. *International Journal of Science and Society*. <https://doi.org/10.54783/ijssoc.v5i5.877>
- Ciamis Regency Health Office. (2021). Blueprint for Smart Ciamis 2021-2025 in the Health Sector. Ciamis: Ciamis Health Office.
- Communication and Informatics Office of Ciamis Regency. (2021). Smart Ciamis 2021-2025. Ciamis.
- Effendi, M. (2017). Designing a Smart City Model in the Implementation of Regional Government in Indonesia. *JISPO*, 7(2), 155-168. <https://doi.org/10.29259/jispo.v7i2.155-168>
- Ilma Soviana, et al. (2022). Implementation of Smart City Policy in Realizing Smart Environment. *Journal of Public Policy*, 8(1).
- Indonesian Ministry of Health. (2011). Healthy Indonesia Indicators: Balanced Nutrition.
- Ismail, A. (2019). Smart City Challenges in City Planning and Development in Indonesia. *Social Welfare Brief Info*, 10(15), 13-16.
- Judijanto, L., Dimas, P., Santosa, N., & Nastiar, M. F. (2025). Smart City Implementation in Indonesia: Trends, Challenges, and Opportunities. *International Journal of Society Reviews (INJOSER)*, 3(1), 156–165. https://doi.org/10.388325105_SMART_CITY_IMPLEMENTATION_IN_INDONESIA_TRENDS_CHALLENGES_AND_OPPORTUNITIES
- Kominfo Ciamis Regency. (2022). Public Information Disclosure Report of Kominfo Ciamis 2022. Ciamis: Kominfo Ciamis.
- Lubis, D. P., & Hasni, Z. (2020). E-Health-Based Health Service Information System in Supporting Smart Health (Study at Puskesmas in Deli Serdang Regency). *Scientific Journal of Public Administration Science: Journal of Public Administration Thought and Research*, 10(1), 103-116.
- Maryani, E., & Dartanto, T. (2021). Financing Smart City Projects in Emerging Countries: What Are The Constraints? *International Journal of Trade and Global Markets*, 14(1), 52-64. <https://doi.org/10.1504/ijtgm.2021.10033658>
- Ministry of Home Affairs. (2018). Technical Guidelines for Smart City Development.
- Ministry of National Development Planning of the Republic of Indonesia. (2021). Guidelines for Smart City Development. Jakarta.
- Muliawan, J. (2021). *Towards Smart City: Innovation and Smart Technology in Surabaya City*. Surabaya: Airlangga University Press.
- Perdana, N. R., Adhasari, G., & Mahadewi, E. P. (2022). Challenges and Implementation of Universal Health Coverage Program in Indonesia. *International Journal of Health and Pharmaceutical (IJHP)*. <https://doi.org/10.51601/ijhp.v2i3.97>
- Rachmawati, R., Haryono, E., & Rohmah, A. A. (2021). Developing Smart City in the New Capital of Indonesia. *2021 IEEE International Smart Cities Conference (ISC2)*, 1–7. <https://doi.org/10.1109/ISC253183.2021.9562891>
- Rahvy, A., Habsy, A., & Ridlo, I. (2020). Actual Challenges of Mental Health in Indonesia: Urgency, UHS, Humanity, and Government Commitment. *European Journal of Public Health*, 30. <https://doi.org/10.1093/eurpub/ckaa166.1023>
- Ratri, D. A. (2020). Implementation of Smart City Technology in the Implementation of Local Government.
- Regulation of the Minister of Health of the Republic of Indonesia Number 43 of 2019 concerning Information and Communication Technology Standards for the Health Sector.

- Rohmah, A. A., Rachmawati, R., & Mei, E. T. W. (2023). Smart City Achievement through Implementation of Digital Health Services in Handling COVID-19 Indonesia. *Smart Cities*, 6(1), 639–651. <https://doi.org/10.3390/smartcities6010030>
- Sulistyaningsih, T., Purnama, R. A., & Kulsum, U. (2023). Smart City Policy: Strategy and Implementation to Realize Smart Urban Governance in Indonesia. *Journal of Governance and Public Policy*. <https://doi.org/10.18196/jgpp.v10i1.13840>
- Wahyudi, R., & Elanda, Y. (2023). Challenges and Strategies for Gender Mainstreaming Policy in Smart City Development in Indonesia. *Gender Equality: International Journal of Child and Gender Studies*. <https://doi.org/10.22373/equality.v9i1.17192>