



PUBLICUS: **JURNAL ADMINISTRASI PUBLIK**

THE IMPACT OIMPLEMENTATION OF GROUNDWATER USAGE REDUCTION POLICY IN SOUTH JAKARTA

Joli Apriansyah, Izzatusholekha, Evi Satispi
1-10

STRATEGIC INNOVATION SYMPHONY: DRIVING COMBAT DRONES FOR DEFENSE ENHANCEMENT

Aris Sarjito
11-22

OPTIMIZING INPATIENT SATISFACTION: EXAMINING THE IMPACT OF SERVICE QUALITY AT LAMADDUKELLENG SENGKANG HOSPITAL IN WAJO DISTRICT

Zul Fchry, Zul Rachmat
23-35

FACTORS INFLUENCING INFORMATION TECHNOLOGY-BASED ADMINISTRATIVE SERVICES AT THE AMBON RELIGIOUS TRAINING CENTER

Kezia Risly Titarsole, Hengky V. R. Pattimukay, Julia Th. Patty
36-45

IMPLEMENTATION OF E-GOVERNMENT IN PUBLIC SERVICES: A CASE STUDY ON THE DEPARTMENT OF POPULATION AND CIVIL REGISTRATION OF BONE DISTRICT

Ahmad Rosandi Sakir, Humairah Almahdali, Yusriah Amallah
46-59

WASTE MANAGEMENT IN SAUMLAKI CITY, TANIMBAR ISLANDS REGENCY

Dewi Hijriyani, Iriane Sosiawaty Ponto, La Madjid
60-69

IMPROVEMENT OF TEACHER PERFORMANCE THROUGH THE IMPLEMENTATION OF A REWARD AND MOTIVATION SYSTEM IN NABIGH ACADEMIC SOPPENG EARLY CHILDHOOD EDUCATION

Zul Fadli
70-80

IMPROVING CHILDREN'S QUALITY OF LIFE THROUGH CHILD-FRIENDLY CITY POLICIES IN THE REGIONAL AUTONOMY SYSTEM

Afdhal
81-91

INTEGRATION OF ENGINEERING AND POLITICS IN WATER MANAGEMENT: A HOLISTIC APPROACH TO ENHANCING PUBLIC

Ony Frengky Rumihin
92-102



Published by:
Program Studi Ilmu Administrasi Negara
Fakultas Ilmu Sosial dan Ilmu Politik
Universitas Pattimura

PUBLICUS: JURNAL ADMINISRASI PUBLIK

Pengarah

Dr. WAHAB TUANAYA, M.Si.

Penanggung Jawab

Dr. STANISLAUS K. OHOIWUTUN, M.Si.

Editor In Chief

Dr. JOSEP A. UFI, M.A.

Sekretaris Redaksi

JULIA T. PATTY, S.Sos., M.M.

Mitra Bestari

Prof. Dr. MOHAMAD A. RAHAWARIN, M.S. (UNIVERSITAS PATTIMURA)
Prof. Dr. ZAINAL A. RENGIFURWARIN, M.Si. (UNIVERSITAS PATTIMURA)
Prof. Dr. HAEDAR AKIB, M.Si. (UNIVERSITAS NEGERI MAKASSAR)
Prof. Dr. H. IMRAN ISMAIL, M.S. (UNIVERSITAS BOSOWA)
Dr. HENDRY SELANNO, S.Sos., M.Si. (UNIVERSITAS PATTIMURA)
STEFANUS SAMPE, S.Sos., GradDipPubAdmin., MPubPol., Ph.D (UNIVERSITAS SAM RATULANGI)
IDA WIDIANINGSIH, Ph.D (UNIVERSITAS PADJAJARAN)
ERNA HERAWATI, Ph.D (UNIVERSITAS PADJAJARAN)
GABRIEL LELE, Ph.D (UNIVERSITAS GADJAH MADA)
JEANE MANTIRI, S.AB., M.A.P. (UNIVERSITAS NEGERI MANADO)

Dewan Redaksi

Drs. PIETER S. SOSELISA, M.Si.
Dr. AMINAH BAHASOAN, M.Si.
Dr. NORMAWATI, M.Si.
Dr. HENGKY V. R. PATTIMUKAY, S.Sos., M.Si.
IVONNY Y. RAHANRA, M.Teol., M.Si.
LA MADJID, S.Sos., M.Si.
JEANLY WAISAPY, M.Si.
HUMAIRAH ALMAHDALI, S.Sos., M.A.P.
AHMAD ROSANDI SAKIR, S.IP., M.A.P.
MARYAM SALAMPESSY, S.Sos., M.Si.
ZUL FADLI, S.E., M.A.P.

Alamat Redaksi

Fakultas Ilmu Sosial dan Ilmu Politik
Universitas Pattimura
Jl. Ir. M. Putuhena, Poka, Kec. Teluk Ambon, Kota Ambon, Maluku
Email: publicus.psap@gmail.com

PUBLICUS: JURNAL ADMINISTRASI PUBLIK

KATA PENGANTAR

Puji syukur kami panjatkan atas kehadiran Tuhan Yang Maha Esa atas limpahan rahmat dan karunia-Nya sehingga PUBLICUS: Jurnal Administrasi Publik Vol. 2 No. 1 Februari 2024 bisa diterbitkan dengan lancar dan tepat waktu.

PUBLICUS: Jurnal Administrasi Publik merupakan salah satu media publikasi ilmiah yang berfokus pada penelitian dan pengembangan di bidang administrasi publik. Kami mempunyai komitmen untuk menyajikan artikel-artikel yang berkualitas dan inovatif sehingga dapat menjadi sumber referensi yang bermanfaat bagi para akademisi, praktisi, dan masyarakat umum.

Dalam PUBLICUS: Jurnal Administrasi Publik, para penulis dapat mengeksplorasi berbagai isu yang berkaitan dengan administrasi publik, mulai dari kebijakan publik, manajemen publik, reformasi birokrasi, partisipasi masyarakat dalam pengambilan keputusan publik, serta isu-isu terkait dengan etika dan akuntabilitas dalam administrasi publik.

Kami berharap PUBLICUS: Jurnal Administrasi Publik dapat menjadi sarana untuk meningkatkan pemahaman dan pengetahuan mengenai administrasi publik khususnya di Indonesia serta membantu menyelesaikan berbagai masalah yang dihadapi di bidang ini. Kami juga berharap dapat terus menerima dukungan dan kontribusi dari para penulis dan pembaca untuk memajukan bidang administrasi publik.

Terima kasih kepada para penulis dan reviewer yang telah berkontribusi dalam pembuatan jurnal ini, serta terima kasih kepada para pembaca yang telah memberikan dukungan dan apresiasi. Selamat membaca dan semoga artikel-artikel di PUBLICUS: Jurnal Administrasi Publik dapat memberikan manfaat bagi kita semua.

Ambon, Februari 2024

Tim Redaksi

PUBLICUS: JURNAL ADMINISTRASI PUBLIK

DAFTAR ISI

<i>IMPLEMENTATION OF GROUNDWATER USAGE REDUCTION POLICY IN SOUTH JAKARTA</i> <i>Joli Apriansyah, Izzatusholekha, Evi Satispi</i>	1-10
<i>STRATEGIC INNOVATION SYMPHONY: DRIVING COMBAT DRONES FOR DEFENSE ENHANCEMENT</i> <i>Aris Sarjito</i>	11-22
<i>OPTIMIZING INPATIENT SATISFACTION: EXAMINING THE IMPACT OF SERVICE QUALITY AT LAMADDUKKELLENG SENGKANG HOSPITAL IN WAJO DISTRICT</i> <i>Zul Fchry, Zul Rachmat</i>	23-35
<i>FACTORS INFLUENCING INFORMATION TECHNOLOGY-BASED ADMINISTRATIVE SERVICES AT THE AMBON RELIGIOUS TRAINING CENTER</i> <i>Kezia Risly Titarsole, Hengky V. R. Pattimukay, Julia Th. Patty</i>	36-45
<i>IMPLEMENTATION OF E-GOVERNMENT IN PUBLIC SERVICES: A CASE STUDY ON THE DEPARTMENT OF POPULATION AND CIVIL REGISTRATION OF BONE DISTRICT</i> <i>Ahmad Rosandi Sakir, Humairah Almahdali, Yusriah Amaliah</i>	46-59
<i>WASTE MANAGEMENT IN SAUMLAKI CITY, TANIMBAR ISLANDS REGENCY</i> <i>Dewi Hijriyani, Iriane Sosiawaty Ponto, La Madjid</i>	60-69
<i>IMPROVEMENT OF TEACHER PERFORMANCE THROUGH THE IMPLEMENTATION OF A REWARD AND MOTIVATION SYSTEM IN NABIGH ACADEMIC SOPPENG EARLY CHILDHOOD EDUCATION</i> <i>Zul Fadli</i>	70-80
<i>IMPROVING CHILDREN'S QUALITY OF LIFE THROUGH CHILD-FRIENDLY CITY POLICIES IN THE REGIONAL AUTONOMY SYSTEM</i> <i>Afdhal</i>	81-91
<i>INTEGRATION OF ENGINEERING AND POLITICS IN WATER MANAGEMENT: A HOLISTIC APPROACH TO ENHANCING PUBLIC</i> <i>Ony Frengky Rumihin</i>	92-102



IMPLEMENTATION OF GROUNDWATER USAGE REDUCTION POLICY IN SOUTH JAKARTA

IMPLEMENTASI KEBIJAKAN MINIMALISASI PENGGUNAAN AIR TANAH DI JAKARTA SELATAN

Joli Apriansyah¹, Izzatusholekha², Evi Satispi³

^{1,2,3}Muhammadiyah Jakarta University

joliapriansyah45@gmail.com¹

Abstract

The accelerated urbanization of Jakarta is precipitating substantial transformations in the city's physical landscape, driven by urban planning initiatives, particularly in the realm of water resource management, with a pronounced reliance on groundwater. This surge in groundwater extraction, notably prevalent in South Jakarta, has led to increased land subsidence, necessitating the enforcement of Governor Regulation Number 162 of 2012. This regulatory framework delineates directives for water resource management, tailored to address the extensive use of groundwater in South Jakarta. This research aims to comprehensively analyze the implementation of policies designed to curtail groundwater usage in South Jakarta. Employing George Edwards III's Policy Implementation framework, four crucial indicators—communication, resources, disposition, and bureaucratic structure—are systematically investigated. Utilizing a descriptive, qualitative approach with data gathered through interviews, observations, and document analysis, the study reveals the pressing need for heightened communication efforts and identifies nuanced challenges in bureaucratic structure, particularly varying interests among agencies. The research advocates for intensified communication strategies and underscores the importance of inter-agency coordination, especially concerning established water tariffs.

Keywords: Implementation, Policy, Groundwater, Jakarta.

Abstrak

Percepatan urbanisasi di Jakarta memicu transformasi besar dalam lanskap fisik kota, yang didorong oleh inisiatif perencanaan kota, terutama dalam bidang pengelolaan sumber daya air, dengan ketergantungan yang besar pada air tanah. Lonjakan pengambilan air tanah, terutama di Jakarta Selatan, telah menyebabkan peningkatan penurunan permukaan tanah, yang mengharuskan pemberlakuan Peraturan Gubernur Nomor 162 Tahun 2012. Kerangka kerja peraturan ini menggambarkan arahan pengelolaan sumber daya air, yang disesuaikan untuk mengatasi penggunaan air tanah yang ekstensif di Jakarta Selatan. Penelitian ini bertujuan untuk menganalisis secara komprehensif implementasi kebijakan yang dirancang untuk mengurangi penggunaan air tanah di Jakarta Selatan. Dengan menggunakan kerangka kerja Implementasi Kebijakan George Edwards III, empat indikator penting - komunikasi, sumber daya, disposisi, dan struktur birokrasi - diselidiki secara sistematis. Dengan menggunakan pendekatan kualitatif deskriptif dengan data yang dikumpulkan melalui wawancara, observasi, dan analisis dokumen, penelitian ini mengungkapkan kebutuhan mendesak akan upaya komunikasi yang lebih baik dan mengidentifikasi berbagai tantangan dalam struktur birokrasi, terutama



perbedaan kepentingan di antara berbagai lembaga. Penelitian ini mengadvokasi strategi komunikasi yang lebih intensif dan menggarisbawahi pentingnya koordinasi antar lembaga, terutama terkait dengan tarif air yang telah ditetapkan.

Kata Kunci: Implementasi, Kebijakan, Air Tanah, Jakarta

INTRODUCTION

Water is a vital element essential for sustaining human life, and its utilisation varies according to diverse contextual needs. In agrarian environments, for instance, the role of water is crucial in facilitating agricultural, livestock, and fishery activities, reflecting the essential life-supporting functions in rural settings (Molden, 2013). In such areas, the volume of water required is expected to be relatively straightforward. Conversely, urban habitats show a significantly higher demand for water resources due to the large concentration of populations characteristic of metropolitan centres (Makbul et al., 2023; Ramdhan et al., 2021). Large populations living in urban conglomerates require substantial amounts of drinking water, not only for household consumption but also to meet the needs of industrial processes integral to urban economies (Dos Santos et al., 2017). Thus, the varied nature of water utilisation underscores the complex interaction between geographical contexts and societal demands, illustrating different paradigms of water needs in rural and urban environments.

According to Aprilia et al. (2022), thirteen rivers in the Jakarta area show raw water quality levels below the established standards, rendering the utilisation of these water sources infeasible. Consequently, raw water extraction from these thirteen rivers cannot be carried out due to poor water quality. However, it is noteworthy that among these, only two rivers, Krukut River and Cengkareng Drain, commendably comply with the established raw water quality standards (Silver, 2016). These two exceptional water streams maintain water quality levels exceeding the set benchmarks, distinguishing them as viable sources for raw water extraction (Prihatinningtyas et al., 2021). Essentially, this highlights a clear dichotomy in the quality of Jakarta's river waters, where most rivers do not meet the set standards, while certain rivers, represented by Krukut River and Cengkareng Drain, exemplify uncontaminated and regulation-compliant raw water quality.

In line with the provisions of Law No. 17 of 2019 on Water Resources, which states that the jurisdiction over water and its sources lies with the state, this responsibility is delegated to relevant ministries and local governments across various regions in Indonesia (Muryati & Triasih, 2021). Concurrently, the commendable initiative by the Provincial Government of DKI Jakarta to regain control over water resource management, transitioning from privatisation to local government supervision, is praiseworthy (Silver, 2007). This strategic policy statement is poised to synergistically align and strengthen the governance framework applied to groundwater resources in Jakarta. The articulated policy trajectory signifies a critical point in the regulatory landscape, embodying a careful shift towards local governance and state-backed stewardship of vital water assets, in accordance with the broader legal imperatives outlined in national legislation.

The establishment of the Governor of DKI Jakarta Regulation on Water Resource Management is underpinned by the primary objective of realising a wise, optimal, comprehensive, integrated, and sustainable water resource governance paradigm, highlighted by environmentally conscious practices aimed at enhancing public welfare. The conceptual framework outlined in Governor Regulation No. 162/2012, specifically detailed in Chapter 1, Article 1, Paragraph 9, states that water resource management is an integrated effort encompassing the planning, implementation, monitoring, and evaluation of initiatives directed at conservation, utilisation, and control of the destructive power of water resources. Further articulated in Governor Regulation No. 162/2012, Article 3, Paragraph (d), is



the provision that the orientation of water resource management is explicitly designed to reduce dependence on deep groundwater and shallow groundwater, emphasising the necessity of conservation practices in the extraction and utilisation processes. This regulatory framework thus signifies a sincere commitment to promoting sustainable water resource practices while ameliorating the potentially adverse environmental impacts associated with groundwater extraction.

The prescriptive guidelines outlined in the explanatory section regarding the principles and directives governing water resource management include the following:

1. The necessity to manage water resources holistically, with a higher emphasis on conservation and the wise use of water resources,.
2. Prioritisation of non-structural approaches in water resource conservation.
3. Utilisation of surface water, rainwater, recycled water, and desalinated seawater to enhance and increase water resilience in the DKI Jakarta region.
4. The necessity to minimise the use of deep and shallow groundwater, especially if used without concurrent conservation measures.
5. Priority should be placed on mitigation, adaptation, and damage control strategies to address the potentially harmful impacts of water's destructive power on life, with a particular focus on water bodies.
6. Empowerment of communities and commercial entities in matters related to the involvement and management of water resources. These directives collectively underscore a comprehensive and wise approach to water resource governance, encompassing conservation principles and pragmatic utilisation strategies to enhance the water resilience of DKI Jakarta.

The pragmatic implementation of water resource management policies in the administrative region of DKI Jakarta has experienced less than optimal realisation (Basuki et al., 2022). A relevant illustration of this phenomenon can be seen historically, particularly before the formulation of the current governor's regulations. In 1998, the provincial government of DKI Jakarta entered into a partnership with private entities, PALYJA and Aetra, for the management of clean water, a partnership scheduled to end in early 2023. Within the framework of this cooperation, an ambitious target was set to achieve 80 percent coverage by the end of that period. However, the current reality shows a striking difference, with clean water service coverage for Jakarta residents reaching only 65 percent, indicating a 15 percent shortfall from the established target of 80 percent (Alamsyah & Angela, 2023). This discrepancy underscores a gap that needs to be addressed in achieving the set benchmarks, necessitating a critical assessment of existing policies and their effective implementation in the complex realm of water resource management in DKI Jakarta.

Simultaneously, the extensive utilisation of groundwater has significant implications, particularly the phenomenon of land subsidence. Paradoxically, the northern sector of Jakarta has witnessed substantial manifestations of this phenomenon, with alarming rates of land subsidence recorded at 25 cm per year (Gambolati & Teatini, 2015). Additionally, the southern region of Jakarta also shows noticeable impacts, albeit on a smaller scale, with an annual land subsidence rate of 5 cm (Karana & Suprihardjo, 2013; Okta et al., 2022; Ramadhan & Taqwa, 2023). Although the current rate of land subsidence may not be considered significant, it is crucial to emphasise that continuous groundwater extraction in the southern Jakarta area has the potential to trigger more severe land subsidence in the future (Syaban & Appiah-Opoku, 2023).

METHODS

This study adopts a qualitative research paradigm, characterised by its depth in examining events based on existing empirical realities, as explained by Neuman (2014). Positioned within the scope of



qualitative research methodology, this study aims to offer not only explanations but also methodically and comprehensively structured descriptions and elucidations, in alignment with the descriptive typology described by Soejono (2005). Descriptive research, as proposed by Soejono, strives to provide an accurate depiction of individuals, conditions, and phenomena pertinent to the research questions, aiming to present a precise portrayal of phenomena in accordance with the research theme.

The research data sources include primary and secondary data. Primary data, obtained through in-depth interviews with various informants involved in the formulation of the governor's regulation (Pergub), provide direct insights. Complementing this, secondary data are gathered from a careful review of various documents and literature. The use of in-depth interviews aligns with Neuman's perspective, which underscores the importance of direct engagement with informants closely related to the Pergub formulation process, thus providing a more nuanced and immediate understanding.

Furthermore, the theoretical framework underlying this study is derived from George Edward III's policy implementation theory, encompassing aspects of communication, resources, disposition, and bureaucratic structure. This theoretical lens serves as an analytical scaffold, offering a structured examination of the policy enactment process in the context of water resource management in Jakarta.

RESULTS AND DISCUSSION

Results

South Jakarta, one of the administrative cities in the Province of DKI Jakarta, continues to enhance its public services and information systems oriented towards a smart city. The emblem of the administrative city of South Jakarta features five shields, adorned with depictions of the Rambutan tree, the Rapih Rambutan fruit, and the Gelatik bird, symbolising a green and tranquil natural environment embodying the ideals of unity, strength, and shared tranquility. Additionally, the expansive area of South Jakarta covers 145.73 km², with sub-districts showing variations in area size. Consisting of 10 sub-districts, Jagakarsa is the largest sub-district, covering an area of 24.87 km², while Mampang Prapatan is the smallest, with an area of 7.73 km².

Table 1
Population and Population Density of South Jakarta

Subdistrict	Area (sq km)	Population			Density	Sex Ratio
		Male	Female	Total		
Jagakarsa	24,87	190.808	188.069	378.877	15.236	101
Pasar Minggu	2169	153.546	151.713	305.259	14.071,20	101
Cilandak	18,16	98.442	101.913	200.358	11.030,90	97
Pesanggrahan	12,76	111.461	110.123	221.584	17.371,20	101
Keb. Lama	16,72	152.728	153.826	306.554	18.335,80	99
Keb. Baru	12,93	71.259	72.318	143.577	11.107,90	99
Mampang P.	7,73	74.906	71.224	146.130	18.902,80	105
Pancoran	8,63	77.477	76.342	153.819	18.037,10	101
Tebet	903	104.868	106.110	210.978	23.350,90	99
Setiabudi	8,85	70.340	69.256	139.596	15.776,20	102
Jumlah	141,37	1.105.835	1.100.897	2.206.732	15.621,00	100

Sources: Rencana Strategis Jakarta Selatan 2017-2022



The Administrative City of South Jakarta operates within a dynamic and strategic environment, presenting a convergence of challenges and opportunities. Among the challenges faced is the rapidly increasing urbanisation rate, where nearly 70% of the economic turnover is concentrated in Jakarta. Failure to effectively manage and control urbanisation in South Jakarta could potentially lead to a surge in slum settlements, worsening traffic congestion, and increased unemployment rates. Additionally, the region grapples with disaster threats, particularly floods, which historically affected all districts in 2014. Vulnerability to landslides is concentrated in the districts of Kebayoran Lama, Kebayoran Baru, Tebet, Pesanggrahan, Pasar Minggu, and Cilandak. Alongside this, recorded fire incidents in 2017 saw a 42% increase, totaling 348 cases. Therefore, there is a strategic need to optimise stakeholder engagement and enhance preparedness protocols to mitigate the occurrence and impacts of such disasters.

Furthermore, persistent traffic congestion looms large, given South Jakarta's strategic proximity to Central Jakarta, which serves as a hub for upper-middle-class economic activities. Despite these challenges, South Jakarta stands as a centre for economic activities, contributing 22% to Jakarta's Gross Regional Domestic Product, amounting to approximately 485.232 trillion Indonesian Rupiah. This economic hub has facilitated substantial employment absorption, with 1.33 million individuals engaged across various enterprises encompassing small, medium, and large-scale businesses.

Derived from policy, this discourse emphasises the importance of active participation, particularly in groundwater utilisation, with an emphasis on ethical and moral considerations. These strategic initiatives are crucial in the context of achieving clean water targets in Jakarta, reaching 824 million cubic metres in 2015. The Jakarta Provincial Government, in its commitment to provide clean water to Jakarta residents, has endeavoured through PAM Jaya, PALYJA, and Aetra since 1998. However, cumulative data until 2015 indicates that the annual distribution of clean piped water reached 560 million cubic meters. Field conditions in the same year showed a concerning network pipe leakage of 232 million cubic metres annually. Despite these efforts, a significant portion of Jakarta's population still relies on groundwater sources, with an annual consumption of 496 million cubic metres, indicating a utilisation rate of 60%, contrasting sharply with the 40% consumption from piped clean water. Thus, the collective clean water supply facilitated by PAM Jaya, PALYJA, and Aetra exclusively amounts to 328 million cubic metres annually. Detailed metrics are presented in Table 2 for a comprehensive review.

Table 2
Provision of Clean Water in Jakarta

Description	Quantity	Percentage
Clean water requirement	824, 7 million m ³	
Piped water provision	560,6 million m ³	
Pipeline network leakage	232, 2 million m ³	41,42%
Groundwater usage	496, 3 million m ³	60,18%
Piped water supply (nett)	328, 4 million m ³	

Sources: BPLHD DKI Jakarta

The permissible threshold for groundwater extraction is 30% of the total aquifer reserves, as exceeding this limit can lead to environmental degradation, as illustrated in the tabulated presentation above. Data sourced from the Jakarta Environmental Agency in 2018, relating to the Setiabudi and North Cipete areas, describes the groundwater quality in the Setiabudi region. In the groundwater quality description column, Setiabudi is classified as heavy, indicating a significant level of contamination. This contamination is attributed to a nitrate content of 2.93 and a sulphate content of 14.72. Therefore,



groundwater in this area is considered unfit for consumption, prompting residents to use piped clean water to ensure public health and safety.

Initiatives undertaken by the Jakarta Provincial Government to mitigate groundwater use, as reported by the Jakarta Provincial Development Planning Agency (Bappeda), are outlined as follows:

1. In 2019, the government initiated the construction of infiltration wells designed to address rainwater pooling by facilitating the absorption of rainwater into the ground during periods of sufficient rainfall. Strategically placed across Jakarta, these wells, totaling 7,500, aim to alleviate water pooling and provide sustainable groundwater recharge, thereby enhancing water availability during dry seasons.
2. In 2021, the government plans to implement real-time groundwater usage monitoring devices across all areas of Jakarta. Currently in the investigation stage, this programme primarily targets areas lacking clean water infrastructure. The deployment of these devices is expected to provide critical information on groundwater consumption dynamics, serving as a basis for targeted interventions in areas without access to piped water.

Scheduled for 2022, the government plans to initiate the establishment of groundwater-free zones specifically designed for areas already served by existing piped water networks. This strategic step aims to reduce dependence on groundwater in areas where piped water infrastructure is available, thereby promoting a transition towards sustainable and centralised water supply systems.

Discussion

Communication

According to insights gathered from an interview with Informant 1, who serves as the Head of the Groundwater Utilisation Section at the Department of Industry and Energy (DPE), the explanation regarding the understanding of Governor Regulation No. 162 of 2012, titled "Direction, Policy, and Strategy for Water Resources Management," reveals that the mandate for water resources management falls under the purview of DPE, encompassing collaborative efforts towards groundwater conservation. This mandate is supported by regulations outlined in Governor Regulation No. 267 of 2016, which delineates the organisational framework and operational protocols for the Department of Industry and Energy. Additionally, Governor Regulation No. 113 of 2005 elaborates guidelines related to the supervision and monitoring of groundwater, covering activities ranging from public mining, oil and gas, and electricity efforts.

Within the scope of DPE's responsibilities regarding groundwater use minimization programmes, explicit provisions are articulated in Governor Regulation No. 267/2016, particularly in Article 3, subparagraph (q), describing the implementation of groundwater conservation initiatives. This initiative mandates DPE to undertake comprehensive planning, development, management, supervision, control, and evaluation for industrial and energy affairs. The realisation of groundwater conservation efforts, as outlined by the Department of Industry and Energy, is marked by the effective closure regulations for shallow and bore wells in the Setiabudi area. Concurrently, public awareness campaigns have been conducted, advocating for the cessation of groundwater use and a swift transition to clean piped water alternatives.

Resources

Based on interview findings, operationalization of this indicator within two SKPDs, namely the Department of Industry and Energy (DPE) and PAM Jaya, has shown positive results. The Department of Industry and Energy explains that its staff actively contributes to policy directive implementation through a team of 25 members possessing adequate expertise in their field. Additionally, in the case of



PAM Jaya, strong staff support is noted, with a personnel count of 825 individuals, a configuration deemed highly sufficient for the smooth implementation of policies.

Findings from interviews focused on authority indicators indicate a regulatory framework describing oversight responsibilities entrusted to the Department of Industry and Energy for enforcement of related regulations. This oversight includes monitoring registered and unregistered groundwater utilisation, vigilance in groundwater drainage activities, and enforcement against violations in groundwater utilisation practices. Simultaneously, PAM Jaya acts as overseer for PALYJA and Aetra, monitoring the oversight processes conducted by local governments over these two private companies. This regulatory framework serves dual purposes of expanding the customer base and enhancing the provision of the provision of clean piped water services.

Disposition

Findings from interview analysis and observational data indicate satisfactory implementation of policy regulations regarding the effective provision of clean water. However, significant discrepancies emerge within the community, particularly among PALYJA clean water users. These users express a tendency to rely on clean water due to a perceived lack of initiatives by PALYJA officials to disseminate information. This indicates a clear mismatch, implying that PAM Jaya, entrusted with overseeing PALYJA, may not demonstrate full commitment or a proactive stance in improving customer relations and services.

Table 3
Clean Water Tariffs in Jakarta

No	Customer Group	Usage Block and Clean Water Tariff Per m ³		
		0 - 10 m ³	11 - 20 m ³	> 20 m ³
1	Group I	1.050	1.050	1.050
2	Group II	1.050	1.050	1.575
3	Group III A	3.550	4.700	5.500
4	Group III B	4.900	6.000	7.450
5	Group IV A	6.825	8.150	9.800
6	Group IV B	12.550	12.550	12.550
7	Group V/Special	14.650	14.650	14.650

Sources: PAM Jaya

In Table 3 above, there are customer group sections, with each group having different allocations. Here are the explanations for the customer groups:

1. Group I: places of worship, public hydrants and water mains, dormitories and social institutions, orphanages, and similar entities.
2. Group II: government hospitals, very basic households, water stations and tanker trucks, very basic apartment buildings, and similar entities.
3. Group III A: simple households, modest apartment buildings, and similar entities.
4. Group III B: middle-income households, medium apartment buildings, small stalls and shops, small workshops, small home-based businesses, non-commercial private institutions, and similar entities.
5. Group IV A; luxurious households, embassies/consulates, government agency offices, foreign representative offices, commercial private institutions, tailors, military institutions, medium



- workshops, medium home-based businesses/lodgings, barbershops, restaurants, private hospitals/clinics, law offices, laboratories, small industries, luxury apartment buildings, doctor practices, budget/non-star hotels, shop houses/shophouses, and similar entities.
6. Group IV B: 1, 2, 3-star hotels or motels, beauty salons, cafes, banks, service stations, large workshops, companies/trade/businesses, 4 and 5-star hotels, high-rise buildings/condominiums, ice factories, food or beverage factories, chemical or pharmaceutical or cosmetic factories, textile factories, warehouses, water barges, PT Jaya Ancol, and similar entities.
 7. Group V/Special; BPP Tanjung Priok; and similar entities.

Bureaucratic Structure

Standard Operating Procedures (SOP) are routine activities that provide employees with means to carry out tasks according to established standards. These SOPs are outlined in Regional Regulation No. 113 of 2005 for the Department of Industry and Energy (DPE), while PAM Jaya's SOPs are regulated under Regional Regulation No. 11 of 1993. Both the Department of Industry and Energy and PAM Jaya demonstrate comprehensive understanding of their respective roles and authorities, maintaining coordinated workflow in efforts towards water resource management. There are no significant conflicts or differences of interest between the Department of Industry and Energy and PAM Jaya due to smooth coordination. However, conflicts of interest arise between PAM Jaya and the private companies PALYJA and Aetra. These disputes stem from differing interests regarding water tariff increases and the cessation of investments by these private companies. Overall, operational dynamics are generally good, given the division of roles and authorities within an integrated coordination framework. Of particular concern is the conflict between PAM Jaya and the aforementioned private companies due to inadequate coordination regarding water tariff adjustments.

CONCLUSION

Conclusion

In presenting consecutive findings and discussions, this research concludes that the assessment of policy implementation metrics, as explained through George C. Edward III's theoretical framework, consists of four critical indicators that play a vital role in ensuring implementation success. These four indicators are communication, resources, disposition, and bureaucratic structure within the context of Edward III's policy implementation model.

1. In the dimension of communication, the evaluation of the success of the policy to minimise groundwater use in South Jakarta heavily depends on communication variables. While stakeholders have performed adequately, there remains a deficiency in public awareness regarding Governor Regulation No. 162 of 2012. As a result, optimal success in communication variables has not been fully achieved.
2. Further assessing the success of policy implementation from the perspective of resource variables, this study underscores the sufficiency of human resources in the Department of Industry and Energy and PAM Jaya. This sufficiency is evidenced by the number of personnel in both institutions, exemplified by 25 personnel in the Department of Industry and Energy managing groundwater and 825 personnel in PAM Jaya.
3. Regarding the disposition indicator, the research findings indicate a good understanding among policy implementers regarding their designated responsibilities, such as the closure of 7,500 wells in Jakarta and the success in persuading the public to use piped water from PAM Jaya, PALYJA, and/or Aetra. However, there remains public disagreement over the perceived high cost of clean water.



4. The bureaucratic structure variable shows good compliance with Standard Operating Procedures (SOPs) by the implementers. Nevertheless, challenges arise from conflicting interests between PAM Jaya, PALYJA, and Aetra, particularly concerning PAM Jaya's concerns about the cessation of funding and investments from these three companies due to the expiration of their cooperation in 2023. Additionally, the transition from the Jakarta Provincial Department of Industry and Energy to the Water Resources Department in 2020 adds an important administrative layer to this complex policy landscape.

Recomendation

The Jakarta government is urged to conduct campaigns aimed at raising public awareness regarding the urgency of using piped water. Firm actions should be taken against companies still using groundwater in an effort to enforce this policy. The government also plays a crucial role in pioneering the setting of water tariffs, aiming to create equitable treatment for all Jakarta residents. Through these steps, it is hoped that public awareness and compliance with using piped water will be achieved, along with the establishment of equitable treatment among all segments of Jakarta society.

REFERENCES

- Alamsyah, S., & Angela, D. (2023). Dinamika Politik Dalam Gerakan Masyarakat Sipil Menolak Privatisasi Pengelolaan Air Di Jakarta. *Jurnal Adhikari*, 2(4), 457–467.
- Aprilia, M., Effendi, H., & Hariyadi, S. (2022). Water quality status based on Pollution Index and Water Quality Index of Ciliwung River, DKI Jakarta Province. *IOP Conference Series: Earth and Environmental Science*, 1109(1), 12051. <https://doi.org/10.1088/1755-1315/1109/1/012051>
- Basuki, T. M., Nugroho, H. Y., Indrajaya, Y., Pramono, I. B., Nugroho, N. P., Supangat, A. B., Indrawati, D. R., Savitri, E., Wahyuningrum, N., Purwanto, Cahyono, S. A., Putra, P. B., Adi, R. N., Nugroho, A. W., Auliyani, D., Wuryanta, A., Riyanto, H. D., Harjadi, B., Yudilastyantoro, C., ... Simarmata, D. P. (2022). Improvement of Integrated Watershed Management in Indonesia for Mitigation and Adaptation to Climate Change: A Review. In *Sustainability* (Vol. 14, Issue 16). <https://doi.org/10.3390/su14169997>
- Dos Santos, S., Adams, E. A., Neville, G., Wada, Y., De Sherbinin, A., Bernhardt, E. M., & Adamo, S. B. (2017). Urban growth and water access in sub-Saharan Africa: Progress, challenges, and emerging research directions. *Science of the Total Environment*, 607, 497–508.
- Gambolati, G., & Teatini, P. (2015). Geomechanics of subsurface water withdrawal and injection. *Water Resources Research*, 51(6), 3922–3955. <https://doi.org/https://doi.org/10.1002/2014WR016841>
- Karana, R. C., & Suprihardjo, R. (2013). Mitigasi bencana banjir rob di Jakarta Utara. *Jurnal Teknik ITS*, 2(1), C31–C36.
- Makbul, R., Zulharnah, H. R., Tanje, H. W., Djufri, H., Bungin, E. R., Faisal, Z., Wijaya, Y., Firdaus, M., Subhan, H. H. A. M., & Mutiara, I. (2023). *PENGEMBANGAN SUMBER DAYA AIR*. TOHAR MEDIA.
- Molden, D. (2013). *Water for food water for life: A comprehensive assessment of water management in agriculture*. Routledge.
- Muryati, D. T., & Triasih, D. (2021). Government Policy on Water Resources Management. *ICILS 2020: Proceedings of the 3rd International Conference on Indonesian Legal Studies, ICILS 2020, July 1st 2020, Semarang, Indonesia*, 111.
- Neuman, W. L. (2014). What are the major types of social research. *Social Research Methods: Qualitative and Quantitative Approaches*. Boston: Allyn and Bacon.
- Okta, E. V., Widyatama, A. A., Utomo, B., & Wilayah, D. P. (2022). Prediksi Penurunan Muka Air



- Tanah terhadap Banjir Rob di Kawasan Pesisir Kota Jakarta. *Jurnal Penataan Ruang*, 17(2), 98–109.
- Prihatinngtyas, E., Jasalesmana, T., Novianti, R., & Nafisyah, E. (2021). Study of Physicochemical of Rivers in DKI Jakarta Province. *IOP Conference Series: Earth and Environmental Science*, 934(1), 12058. <https://doi.org/10.1088/1755-1315/934/1/012058>
- Ramadhan, K., & Taqwa, F. M. L. (2023). Analisis Penurunan Tanah Jalan RE Martadinata Jakarta Utara Menggunakan Metode Konvensional dan Pengamatan GPS Geodetic. *Journal of Applied Civil Engineering and Infrastructure Technology*, 4(2), 28–33.
- Ramadhan, M., Arifin, H. S., Suharnoto, Y., & Tarigan, S. D. (2021). *PENGELOLAAN SUMBER DAYA AIR PERMUKAAN BERKELANJUTAN DI PERKOTAAN: Studi Kasus Kota Bogor*. Penerbit NEM.
- Silver, C. (2007). *Planning the megacity: Jakarta in the twentieth century*. Routledge.
- Silver, C. (2016). Distressed city: The challenges of planning and managing megacity Jakarta. *Transforming Distressed Global Communities: Making Inclusive, Safe, Resilient, and Sustainable Cities*, 183–210.
- Soejono, H. A. (2005). *Metode Penelitian : Suatu Pemikiran dan Penerapan*. Rineka Cipta.
- Syaban, A. S. N., & Appiah-Opoku, S. (2023). Building Indonesia's new capital city: an in-depth analysis of prospects and challenges from current capital city of Jakarta to Kalimantan. *Urban, Planning and Transport Research*, 11(1), 2276415. <https://doi.org/10.1080/21650020.2023.2276415>





INNOVATION'S STRATEGIC SYMPHONY: PROPELLING COMBAT DRONES FOR DEFENSE ASCENDANCE

SIMFONI STRATEGI INOVASI: MENDORONG DRONE TEMPUR UNTUK PENINGKATAN PERTAHANAN

Aris Sarjito

Indonesian Defense University

arissarjito@gmail.com

Abstract

As the landscape of warfare undergoes a transformative shift towards unmanned systems, combat drones emerge as pivotal instruments at the intersection of innovation, defense policy, and strategic orchestration. This research explores the intricate dynamics shaping combat drone development, emphasizing the harmonious interplay between defense policy and innovation theories. The rise of combat drones signals a paradigm shift in military strategies, necessitating a comprehensive understanding of the policy dynamics steering their innovation. This study aims to unravel the complex interdependencies between defense policies and innovation theories in combat drones' development, deployment, and strategic orchestration. This study uses various qualitative research methods to find its way through the complicated web of policy changes and new ideas in combat drone development. These methods include synthesis of literature reviews, content analysis of policy documents, case study examination, thematic coding of expert interviews, constant comparative analysis, and triangulation. Findings reveal the strategic symphony underlying combat drone evolution, illustrating the nuanced components shaping their trajectory. From policy harmonization to dynamic decision-making, the study illuminates the synergistic forces propelling combat drones for defense ascendancy. In conclusion, the orchestration of defense policy and innovation theories intricately shapes the trajectory of combat drone technology. The synthesis of qualitative findings contributes to a holistic understanding of the strategic landscape, offering insights for policymakers, military strategists, and scholars navigating the complex realm of unmanned systems in defense.

Keywords: Combat Drones, Defense Policy, Innovation, Strategic Symphony, Unmanned Systems.

Abstrak

Ketika lanskap peperangan mengalami pergeseran transformatif menuju sistem tak berawak, drone tempur muncul sebagai instrumen penting di persimpangan antara inovasi, kebijakan pertahanan, dan orkestrasi strategis. Penelitian ini mengeksplorasi dinamika rumit yang membentuk pengembangan drone tempur, menekankan keterkaitan yang harmonis antara kebijakan pertahanan dan teori inovasi. Munculnya drone tempur menandakan perubahan paradigma dalam strategi militer, sehingga memerlukan pemahaman komprehensif tentang dinamika kebijakan yang mendorong inovasi mereka. Studi ini bertujuan untuk mengungkap saling ketergantungan yang kompleks antara kebijakan pertahanan dan teori inovasi dalam pengembangan, penyebaran, dan orkestrasi strategis drone tempur. Studi ini menggunakan berbagai metode penelitian kualitatif untuk menemukan jalan melalui jaringan



rumit perubahan kebijakan dan ide-ide baru dalam pengembangan drone tempur. Metode-metode tersebut meliputi sintesis tinjauan literatur, analisis isi dokumen kebijakan, pemeriksaan studi kasus, pengkodean tematik dari wawancara pakar, analisis komparatif konstan, dan triangulasi. Temuan ini mengungkap simfoni strategis yang mendasari evolusi drone tempur, yang menggambarkan berbagai komponen yang membentuk lintasannya. Mulai dari harmonisasi kebijakan hingga pengambilan keputusan yang dinamis, studi ini menyoroti kekuatan-kekuatan sinergis yang mendorong drone tempur untuk meningkatkan kekuatan pertahanan. Kesimpulannya, orkestrasi kebijakan pertahanan dan teori inovasi secara rumit membentuk lintasan teknologi drone tempur. Sintesis temuan kualitatif berkontribusi pada pemahaman holistik mengenai lanskap strategis, menawarkan wawasan bagi para pembuat kebijakan, ahli strategi militer, dan pakar yang menavigasi bidang kompleks sistem tak berawak dalam bidang pertahanan.

Kata Kunci: Drone Tempur, Kebijakan Pertahanan, Inovasi, Simfoni Strategis, Sistem Tak Berawak.

INTRODUCTION

In recent years, the use of combat drones has become a significant trend in the defence sector. Unmanned Aerial Vehicles (UAVs) have revolutionised military operations by offering various capabilities, from surveillance and reconnaissance to precision strikes. However, the rapid development and adoption of combat drones also pose many policy challenges and strategic considerations (Sarjito & Lelyana, 2023). This research aims to investigate the complex dynamics of policy-making and innovation in the context of combat drones, seeking to understand how these factors drive technological advancements for defence purposes.

Combat drones have transformed the face of modern warfare in recent years, attracting interest and funding from militaries worldwide. The widespread use of these sophisticated unmanned systems has sparked discussions on morality, legality, and the potential for autonomous decision-making during hostilities. It is crucial to examine the complex interaction between policy-making and innovation in combat drones as governments grapple with the impacts of this technology. Studying the motivations behind their creation and deployment can help us understand how military capabilities will evolve in the future and how they will impact international security (Issacharoff & Pildes, 2013).

Technological advancements have led to an increased prevalence of unmanned aerial vehicles, or combat drones. Moral and legal questions arise when using these systems for targeted attacks, surveillance, and reconnaissance. In their quest for competitive advantage, nations also jeopardise international relations. To address these barriers, decision-makers must establish appropriate rules, promote global collaboration, and foster openness and trust among countries (Kathy Hovis, 2021).

Studying unmanned systems, especially combat drones, is crucial for policymakers and military strategists. This helps in understanding their ethical, legal, and strategic implications, enabling a better grasp of their potential impacts on warfare and international relations. This research also aids in assessing the risks and benefits of delegating life-and-death decisions to machines, guiding the development of responsible military strategies.

The evolution of combat drones is not just a technological advancement but a complex interaction between policy decisions, innovation processes, and strategic considerations. The challenge lies in the need to comprehensively understand how policy dynamics influence the innovation process in the development of combat drones and, in turn, how this innovation shapes the strategic landscape.

This research aims to understand the influence of policy dynamics on innovation in the development of combat drones, focusing on the relationship between defence policy formulation and technological progress. This report conceptualises the Strategic Symphony, a framework integrating defence policy and innovation theory aimed at providing a different understanding of the strategic



landscape. This study also identifies a framework for analysing policy dynamics in drone development, providing a comprehensive tool for evaluating the impact of policy decisions on technology development.

Research questions include:

1. How do policy dynamics influence the innovation process in the development of combat drones, and what are the key mechanisms used in policy decisions to determine innovation outcomes?
2. In conceptualising the Strategic Symphony in the context of combat drones, what are the core elements and interactions between defence policy and innovation theory that form the basis of this conceptual framework?
3. How does the integration of defence policy and innovation theory contribute to a diverse understanding of the strategic landscape in the development of combat drones, particularly regarding technological advancements and policy effectiveness?
4. What components form the framework for analysing policy dynamics in the development of drones, and how do these components interact to influence overall drone technology development?
5. How does the interaction between defence policy and innovation theory impact the decision-making process in developing and deploying combat drones for defence purposes?

By addressing questions related to the effectiveness, benefits, and drawbacks of integrating unmanned systems into military strategies, this research will contribute to informed decision-making.

METHODS

Qualitative research methods using secondary data are beneficial for examining complex phenomena and gaining deep insights. In this study, we will explore the application of these methods, as outlined by Creswell & Creswell (2017), in the context of a research study titled "Strategic Symphony of Innovation: Driving Combat Drones for Defence Enhancement."

Firstly, the use of secondary data allows researchers to analyse existing information collected by other individuals or organisations (Creswell & Creswell, 2017). In this case, the study on combat drones will involve analysing previously published reports, policy documents, and scholarly articles related to the subject matter. Secondary data provides a wealth of information, enabling researchers to investigate various aspects and dimensions of the phenomenon under study.

Secondary data in qualitative research reveals long-term trends in the development, adoption, and defence implications of combat drones, involving policymakers, defence analysts, military personnel, and industry experts, identifying gaps and areas for further investigation.

RESULTS AND DISCUSSION

Results

The integration of combat drones into military operations has revolutionised warfare, highlighting the complex relationship between policy dynamics and innovation. Policy dynamics involve changes in the nature of government decisions and ongoing feedback between policymakers and stakeholders, which are crucial in shaping the direction of innovation in combat drone development. The Strategic Symphony framework, inspired by Howlett and del Rio, integrates defence policy and innovation theory to create a dynamic interaction between policy decisions and innovative practices, resulting in significant advances in combat drone technology.

The dynamic relationship between defence policy and innovation theory allows for a deeper understanding of the strategic landscape and the effectiveness of defence policies. Strategic alignment



with innovation theory fosters a symbiotic relationship between policy objectives and technological advancements, ensuring flexible and adaptable defence policies. Policy goals centred on innovation align with the development of combat drone technology, thereby enhancing its effectiveness.

The policy-dynamic framework for drone development includes regulatory frameworks, budget allocations, and research and development incentives. Adequate funding is crucial to driving the growth and maturation of drone technology, while flexible regulatory frameworks are essential for policymakers to address emerging security risks without hindering innovation. Collaboration among government agencies, industry stakeholders, and researchers is crucial to achieving effective policies.

The integration of defence policy and innovation theory has significantly influenced the development and deployment of combat drones, fostering adaptive decision-making processes and balancing ethical and strategic considerations.

Discussion

Exploring the Sky of Innovation: Uncovering Policy Dynamics in Combat Drone Development

The integration of combat drones into military operations has transformed the landscape of modern warfare. Behind the evolution of these unmanned systems lies a complex interaction between policy dynamics and the innovation process. This discussion delves into the intricate relationship, examining how policy decisions influence innovation outcomes in combat drone development.

Policy Dynamics and Innovation

According to Jenkins-Smith & Sabatier (1999), policy dynamics encompass changes in the nature of government decisions influenced by external factors and ongoing feedback loops between policymakers and stakeholders. In the development of combat drones, these policy dynamics serve as a driving force behind innovation. Understanding the adaptive nature of policy provides insights into the conditions that either promote or hinder innovation in military technology.

In recent years, combat drones have emerged as revolutionary tools in modern warfare, offering significant advantages in surveillance, reconnaissance, and targeted strikes. As governments strive to lead in this rapidly evolving field, policy decisions play a crucial role in determining the direction of innovation. By further exploring the interplay between policy dynamics and innovation outcomes in combat drone development, we can better understand the complex factors and identify strategies to drive technological advancements in military technology (Braun et al., 2019).

The mechanisms used in policy decision-making to determine innovation outcomes encompass various aspects. One crucial mechanism is resource allocation guided by policy priorities. Mintrom & Norman (2009) explain that policy decisions dictate budget allocations and institutional support, directly influencing the phases of research, development, and implementation of combat drone innovation.

The regulatory environment that defines policy decisions is also crucial. According to Rogers et al. (2014), legal frameworks and regulations established by governments serve as both barriers and enablers of innovation. Achieving the right balance ensures compliance with ethical standards and international law while creating a conducive environment for technological advancements.

Furthermore, the decision-making processes within government bodies contribute to shaping innovation outcomes. Harris (2001) suggests that the dynamics of collaboration among agencies illustrate how various institutions and departments with diverse priorities navigate policy landscapes, thus impacting the trajectory of combat drone innovation.



Harmonising Defence Policy and Innovation: Unveiling the Symphony in Combat Drone Development

As combat drones become integral components of modern military arsenals, orchestrating defence policy and innovation theory becomes crucial to navigating the complexity of their development. This essay explores the conceptualization of the Strategic Symphony, explaining its core elements and the interactions between defence policy and innovation theory underlying this transformative conceptual framework.

Core Elements of the Strategic Symphony Strategic

The core of the Strategic Symphony involves integrating principles of strategic management into policy processes. Research by Berry & Berry (2019) lays the foundation for this integration, emphasising the need for strategic alignment between defence policy and innovation trajectories. The Strategic Symphony framework aims to align policy decisions with strategic objectives, creating a harmonious symphony for combat drone development. This requires a deep understanding of strategic management principles and defence policy processes.

Howlett & del Rio's work (2015) inspired the conceptualization of the Strategic Symphony, which goes beyond closed approaches. This integration envisions holistic orchestration, capturing synergies between defence policy and innovation theory. This conceptual framework strives to foster dynamic interactions where policy decisions and innovative practices seamlessly intertwine to enhance the effectiveness and efficiency of combat drone development. Integrating policy and innovation into combat drone development is crucial to enhancing its effectiveness and efficiency. Howlett & del Rio's (2015) work on holistic integration has inspired the conception of the Strategic Symphony. This approach goes beyond traditional isolated approaches and aims to capture synergies between defence policy and innovation theory. By seamlessly integrating policy decisions and innovative practices, this framework aims to foster dynamic interactions that can lead to significant advancements in combat drone technology.

Interaction between Defence Policy and Innovation Theory Dynamic Decision-Making in Defence Policy

The conceptualization of the Strategic Symphony aligns with dynamic decision-making in defence policy. Harris (2001) argues that defence policy, especially in responding to new technologies like combat drones, requires a dynamic and adaptive approach. The Strategic Symphony emphasises dynamic defence policies that adapt to new technologies, helping decision-makers navigate complex innovation landscapes, assess potential threats, and allocate resources effectively, ensuring the welfare and interests of a nation are protected. (Kuo, 2022).

An essential element of the Strategic Symphony is aligning innovation trajectories with broader strategic goals. This concept draws inspiration from strategic management literature, particularly David (2011). This framework emphasises the importance of aligning innovative practices in combat drone development with strategic goals to achieve broader objectives, emphasising the need for strategic management principles in technology development. Drawing inspiration from David's work, this framework emphasises the need for alignment between innovative practices and the overall strategic goals of the organization. This aims to create a cohesive and synchronised symphony where each element works harmoniously towards common goals (Mariani & Liu, 2020).



Regulating Progress: Integrating Defence Policy and Innovation Theory in the Strategic Landscape of Combat Drone Development

In the continuously evolving field of military technology, combat drone development is evidence of the dynamic interaction between defence policy and innovation theory. This essay explores how the integration of these two crucial dimensions contributes to a diverse understanding of the strategic landscape, particularly in the context of technological advancements and the effectiveness of defence policies that regulate combat drone development.

Technological Advancements

Integrating defence policy and innovation theory facilitates strategic alignment that fosters technological advancements. According to Mintrom & Norman (2009), this alignment ensures that policy decisions are based on cutting-edge principles, fostering a symbiotic relationship between defence policy objectives and technological advancement requirements in combat drone development. Strategic alignment between defence policy and innovation theory enables policymakers to prioritise technological advancements in combat drone technology, ensuring flexibility and adaptability to emerging technologies and evolving threats, thus driving continuous improvement in drone development (Schwandt, 2022).

Holistic integration contributes to the creation of an innovation ecosystem in defence policy, considering various dimensions of innovation. Based on the work of Howlett & del Rio (2015), this approach allows for a comprehensive evaluation of technological advancements, encompassing not only hardware and software development but also procedural and organisational innovations in combat drone development. This holistic innovation ecosystem recognises the interconnectedness of various factors contributing to policy changes in defence policy. A more comprehensive evaluation of technological advancements can be achieved by considering various dimensions of innovation, such as hardware, software, procedures, and organisational advancements. This is highly relevant in combat drone development, where progress in all these areas is crucial for effective and efficient operations (Rabelo & Bernus, 2015).

Policy Effectiveness

Integrating defence policy and innovation theory allows for dynamic responses to emerging technological challenges. Harris (2001) highlights the importance of adaptive capabilities in defence policy, especially when faced with military technological advancements such as combat drones. This dynamic approach ensures that policies effectively address emerging threats and opportunities. Furthermore, Howlett & del Rio (2015) argue that policy changes require learning, feedback, and design. By incorporating these elements, policymakers can continuously assess the effectiveness of their policies and make necessary adjustments. This is particularly important in defence policy, as rapid technological advancements demand continuous adaptation. As Harris (2001) argues, combat drones present new challenges that require flexible and innovative policy responses. Defence policies may become outdated and ineffective in addressing emerging threats without a dynamic approach (CRS, 2023).





Figure 1. Armed Predator Drone (CRS, 2023)

Integrating innovation theory into defence policy formulation enables the establishment of innovation-centred goals. Berry & Berry's research (2019) on innovation and strategic management emphasises the need for policy goals aligned with innovation pathways. The effectiveness of combat drone development policies can be enhanced by aligning goals with innovation theory. As highlighted by Berry and Berry (2019), this approach recognises that traditional goals may not suffice to address new warfare challenges and promotes innovation-centred objectives.

Navigating Policy Dynamics: Components Shaping Drone Technology Trajectory

The rapid evolution of drone technology necessitates a profound understanding of the policy dynamics governing its development. This discussion explores the components shaping the framework for analysing policy dynamics in drone development and examines how these interact to influence the overall direction of this transformative technology.

Components of the Policy Dynamics Framework

The core of this framework lies in the regulatory components that define the legal parameters of drone development. According to Rogers et al. (2014), the regulatory framework is crucial in determining the scope, permissions, and limitations of drone technology development. The effectiveness of these regulations is paramount to ensuring responsible and safe advancements. Additionally, the regulatory framework plays a significant role in addressing safety issues and mitigating potential risks associated with drone use. They provide guidelines for operators, manufacturers, and users, promoting accountability and compliance with established standards. Without a robust regulatory framework, rapid advancements and widespread adoption of drone technology may lead to unforeseen consequences and potential misuse. Therefore, continuous assessment and updating of these regulations are crucial to balancing technological advancements and addressing emerging challenges (Raghunatha et al., 2023).

Financial considerations are a critical component influencing the policy dynamics of drone development. Mintrom & Norman (2009) underline the impact of budget allocation on the phases of research, development, and implementation of technological innovations. Adequate funding is essential to driving the growth and maturation of drone technology. Without sufficient financial resources, the progress of drone development can be hindered, thereby slowing advancements and limiting capabilities. To fully harness the potential of drones, governments and organisations must allocate adequate budgets for research, testing, and implementation. This will support the technical aspects of drone technology and facilitate the development of regulations and safety measures to ensure



responsible and ethical use. Moreover, budget allocation can contribute to expanding the drone industry, creating new jobs, and fostering economic growth (Levine, 2023).

Interaction among Components

The regulatory framework dynamically interacts with budget considerations, balancing security interests and the need for innovation. This interaction is crucial in ensuring that policies promote technological advancements while managing the security risks associated with drone technology. Harris (2001) emphasises the complex relationship between security concerns and the imperative for innovation. They argue that achieving the right balance between security and innovation requires a flexible regulatory framework that can adapt to evolving technological advancements. This flexibility allows policymakers to address emerging security risks without stifling the potential for innovation in the drone industry.

The interaction between budget allocation and the regulatory framework incentivizes research and development in drone technology. As emphasised by Howlett & del Rio (2015), effective policies encourage innovation by providing financial support and creating an environment where researchers and developers are motivated to explore new ideas and technologies. Budgetary resources and regulatory frameworks are crucial in driving the research and development of drone technology. Governments and organisations can incentivize researchers by providing financial support and infrastructure. The regulatory framework creates an environment for experimentation and exploration, offering guidelines and safety incentives. This framework simplifies innovation and promotes collaboration among stakeholders, accelerating progress and technological advancements in drone technology (Ayamga et al., 2021).

Influence on the Overall Trajectory

The framework's adaptability to emerging technologies, as shaped by regulatory components, influences the overall development of drone technology. According to Jenkins-Smith & Sabatier (1999), this adaptability ensures that policies remain relevant and effective in addressing the rapid technological advancements in the drone industry. Furthermore, the framework's adaptability to new technologies also plays a crucial role in shaping the development and regulation of drone technology. According to Howlett & del Rio (2015), the regulatory elements incorporated into the framework enable policymakers to respond to rapid advancements in the drone industry. This adaptability ensures that policies remain relevant and effective in addressing the evolving landscape of drone technology, thereby enabling the integration of drones into various sectors such as transportation, agriculture, and surveillance to become more efficient and sustainable.

The interaction within the policy dynamics framework also determines policy responsiveness to public interests. According to McCormick (2017), public opinion can shape policy choices, influencing the direction of drone technology development based on societal values and expectations. Public opinion plays a crucial role in determining policy choices and influencing the direction of drone technology development. McCormick (2017) argues that societal values and expectations can significantly impact how policies respond to public concerns. This indicates that stakeholder groups, interest groups, and the general public influence advocacy coalition frameworks. As a result, the interaction among these various actors shapes policy dynamics, leading to more responsive approaches to addressing public concerns regarding drone technology.



Coordinator Strength: The Impact of Defence Policy and Innovation Theory on Decision Making in Combat Drone Development and Deployment

The integration of defence policy and innovation theory has transformed the landscape of decision-making processes in developing and deploying combat drones. This essay explores the intricate interaction between defence policy and innovation theories, examining their collective impact on decision-making processes that govern the evolution and utilisation of combat drones for defence purposes.

Influence on Decision-Making Processes

The interaction between defence policy and innovation theories introduces strategic management principles into decision-making processes. Based on Berry & Berry's research (2019) on innovation and strategic management, this integration ensures that decisions align with broader strategic objectives, creating a cohesive and goal-oriented approach to combat drone development and deployment (Harris, 2001).

The merging of defence policy and innovation theories encourages adaptive decision-making processes. Harris (2001) asserts that adaptive decision-making is crucial for rapidly evolving technologies such as combat drones. This interaction ensures that policies remain responsive to emerging innovations, shaping decisions that anticipate and adapt to technological advancements. Integrating innovation theory into public sector strategic management and defence policies enables a proactive approach to technological advancements. This approach fosters continuous learning and improvement, cultivating a culture of adaptability and agility among military personnel. The blend of defence policy and innovation theory creates a dynamic environment, allowing the defence sector to maintain superiority in addressing emerging threats and retaining competitive advantage in an unpredictable global security landscape (NDSTSR-TF, 2023).

Impact on Development Decisions

The interaction between defence policy and innovation theory shapes decision goals in combat drone development. Berry and Berry's framework (2019) emphasises the need for innovation-centred policy goals. This ensures that decisions prioritise technological advancement, fostering a culture of sustainable innovation in the defence sector. Harris (2001) underscores the importance of innovation-centred policy goals in drone development decisions. They argue that prioritising technological advancement will cultivate a sustainable culture of innovation, critical for modern competitiveness. Berry and Berry (2019) also highlight the integration of innovation into defence strategies, creating agile and adaptable combat drones that enhance military effectiveness and strategic superiority in a rapidly changing security landscape.

The interplay between defence policy and innovation theory influences decisions by balancing ethical considerations with strategic imperatives. This is particularly evident in the work of Rogers et al. (2014), which highlights the need for policies to address ethical dilemmas associated with combat drone use while strategically leveraging its technological capabilities. To ensure the ethical use of combat drones, policymakers must carefully balance moral interests with strategic goals. Clear guidelines and protocols must be developed to regulate engagement rules and minimise civilian casualties. Policymakers must prioritise transparency, accountability, and ethical evaluation to reduce misuse and moral erosion. Evaluating long-term impacts, international relations, and ethical implications is crucial. Research should align drone deployment with humanitarian laws and human rights standards, upholding principles of just warfare (Barracks & Igoe Walsh). Marcus Schulzke, 2015).



Impact on Deployment Decision

The interaction between defence policy and innovation theory impacts deployment decisions by prioritising risk mitigation and responsiveness. According to Mintrom and Norman (2009), policies incorporating innovation theory naturally emphasise strategies that reduce the risks associated with cutting-edge technologies like combat drones. This ensures a measured and responsive implementation process. Defence policies influenced by innovation theory ensure a measured and responsive implementation process by prioritising risk mitigation and responsiveness. Mintrom and Norman (2009) argue that policies integrating innovation theory naturally emphasise strategies that reduce risks associated with cutting-edge technologies like combat drones. This approach not only protects military personnel but also allows for more calculated and controlled deployment processes.

The blend of defence policy and innovation theory allows decision-makers to strategically adapt to emerging threats. Harris (2001) underscores the importance of adaptive strategies in responding to geopolitical challenges. This interaction ensures that deployment decisions align with the dynamic nature of the contemporary security landscape. The integration of defence policy and innovation theories emphasises the importance of continuous monitoring and assessment of emerging threats. Policy entrepreneurship and strategic adaptation are crucial in navigating complex security environments. This approach allows for more controlled deployment processes, reducing the risks associated with outdated policies. Proactive identification and handling of potential threats result in more efficient security measures (Dew & Lewis, 2022).

CONCLUSION

Conclusion

Strategic Symphony is a framework that integrates strategic management principles with defence policy and innovation theory to guide the development of combat drones. This approach aims to create a dynamic environment where defence policies evolve dynamically in response to the imperative of innovation. The framework reflects a balance between the importance of security, innovation incentives, and societal concerns. By balancing ethical considerations with new threats and setting goals, policymakers can make strategic and flexible decisions that promote the responsible growth of combat drone technology in the defence sector. This comprehensive guidance is crucial for policymakers, military strategists, and researchers navigating the complex landscape of combat drone development.

Recommendation

The Strategic Symphony framework is a valuable tool for guiding the development of combat drones in the defence sector. It integrates strategic management principles, defence policy, and innovation theory, enabling responsive and strategic decision-making. This framework balances security, innovation incentives, and societal concerns, ensuring responsible growth. It also emphasises ethical considerations, ensuring that the growth of combat drone technology aligns with social values. Strategic Symphony serves as a roadmap for navigating the intersection of defence policy and innovation, making it a transformative tool for policy formulation, military strategy, and research.

REFERENCES

Ayamga, M., Tekinerdogan, B., Kassahun, A., & Rambaldi, G. (2021). Developing a policy framework for adoption and management of drones for agriculture in Africa. *Technology Analysis & Strategic Management*, 33(8), 970–987.



- Barracks, C., & Igoe Walsh Marcus Schulzke, J. (2015). THE ETHICS OF DRONE STRIKES: UNITED STATES ARMY WAR COLLEGE PRESS DOES REDUCING THE COST OF CONFLICT ENCOURAGE WAR?
- Berry, W. D., & Berry, M. J. (2019). Innovation and Strategic Management in the Public Sector. *Journal of Policy Analysis and Management*, 38(3), 702–726.
- Braun, J., Gertz, S. D., Furer, A., Bader, T., Frenkel, H., Chen, J., Glassberg, E., & Nachman, D. (2019). The promising future of drones in prehospital medical care and its application to battlefield medicine. *Journal of Trauma and Acute Care Surgery*, 87(1S), S28–S34.
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- CRS. (2023). *Armed Drones: Evolution as a Counterterrorism Tool*. <https://crsreports.congress.gov>
- David, F. R. (2011). *Strategic management concepts and cases*. Pearson.
- Dew, N., & Lewis, I. (2022). System-on-System Competition in Defense Innovation. *Expeditions with MCUP*, 2022(1), 1–71.
- Harris, P. (2001). American Foreign Policy: The Dynamics of Choice in the 21st Century by Bruce W. Jentleson. *DEMOCRATIZATION-ILFORD-*, 8(1), 303–304.
- Howlett, M., & del Rio, P. (2015). The Parameters of Policy Change: Learning, Feedback, and Design. *Journal of Public Policy*, 35(1), 35–62.
- Issacharoff, S., & Pildes, R. H. (2013). Drones and the dilemma of modern warfare.
- Jenkins-Smith, H. C., & Sabatier, P. A. (1999). The advocacy coalition framework: An assessment. *Theories of the Policy Process*, 118, 117–166.
- Kathy Hovis. (2021). Examining the impact of drone warfare on global world order. *A&S Communications*. <https://government.cornell.edu/news/examining-impact-drone-warfare-global-world-order>
- Kuo, K. (2022). Dangerous Changes: When Military Innovation Harms Combat Effectiveness. *International Security*, 47(2), 48–87. https://doi.org/10.1162/isec_a_00446
- Levine, J. (2023, May 31). The National Drone and Advanced Air Mobility Initiative Act . *Insight*. <https://www.americanactionforum.org/insight/the-national-drone-and-advanced-air-mobility-initiative-act/>
- Mariani, J., & Liu, P. (2020, September). Advancing Drone Technology Innovation in Government. *FedTech*. <https://fedtechmagazine.com/article/2020/09/advancing-drone-technology-innovation-government>
- McCormick, J. (2017). *Carrots, Sticks and Sermons: Policy Instruments and Their Evaluation*. Routledge.
- Mintrom, M., & Norman, P. (2009). Policy entrepreneurship and policy change. *Policy Studies Journal*, 37(4), 649–667.
- NDSTSR-TF. (2023). An Innovation Strategy for the Decisive Decade. <https://docs.house.gov/meetings/AP/AP00/20230622/116151/HMKP-118-AP00-20230622-SD002.pdf>
- Rabelo, R. J., & Bernus, P. (2015). A Holistic Model of Building Innovation Ecosystems. *IFAC-PapersOnLine*, 48(3), 2250–2257. <https://doi.org/10.1016/J.IFACOL.2015.06.423>
- Raghunatha, A., Thollander, P., & Barthel, S. (2023). Addressing the emergence of drones – A policy development framework for regional drone transportation systems. *Transportation Research Interdisciplinary Perspectives*, 18, 100795. <https://doi.org/10.1016/J.TRIP.2023.100795>
- Rogers, E. M., Singhal, A., & Quinlan, M. M. (2014). Diffusion of innovations. In *An integrated approach to communication theory and research* (pp. 432–448). Routledge.



Sarjito, A., & Lelyana, N. (2023). Analisis Dampak Persepsi Ancaman Drone Terhadap Pembuatan Kebijakan Pertahanan Dan Proses Alokasi Sumber Daya. *Jurnal of Management and Social Sciences*, 1(4), 14–32.

Schwandt, J. (2022, March 22). Improve Drone Technology for Future Battlefields. AUSA. <https://www.ausa.org/articles/improve-drone-technology-future-battlefields>



This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).
Copyright (c) 2024 Aris Sarjito.



**OPTIMIZING INPATIENT SATISFACTION: EXAMINING THE
IMPACT OF SERVICE QUALITY AT LAMADDUKKELLENG
SENGKANG HOSPITAL IN WAJO DISTRICT**

**OPTIMASI KEPUASAN PASIEN RAWAT INAP: MENELAHAH
PENGARUH KUALITAS PELAYANAN DI RUMAH SAKIT
LAMADDUKKELLENG SENGKANG KABUPATEN WAJO**

Zulfachry¹, Zul Rachmat²

¹Puangrimaggalatung Sengkang University

zulfachry25@gmail.com¹

²STMIK Amika Soppeng

zulrachmat@amiklps.ac.id²

Abstract

This study aims to identify and analyze the influence of service quality on the level of patient satisfaction at Lamaddukkelleng Sengkang Hospital in Wajo District. The hospital, as a public service institution, faces a primary challenge related to the discrepancy between service delivery and patient expectations. In an effort to maintain trust and patient satisfaction, Lamaddukkelleng Sengkang Hospital is required to enhance the quality of its services. The research employs a quantitative approach, collecting primary data through questionnaires distributed to 89 inpatients. Statistical analysis using SPSS 26.0 indicates that service quality significantly influences the level of patient satisfaction. The correlation between service quality and patient satisfaction variables, at 0.368, suggests a positive yet weak influence. The analysis also reveals that overall, service quality is categorized as fairly good, with some indicators needing improvement to achieve an excellent level. Meanwhile, the overall level of patient satisfaction is considered good, but there is still room for improvement. The findings of this research provide a comprehensive overview of the relationship between service quality and patient satisfaction at Lamaddukkelleng Sengkang Hospital, laying the groundwork for the development of improvement strategies and enhanced services in the future

Keywords: Service Quality, Patient Satisfaction, Lamaddukkelleng Hospital.

Abstrak

Penelitian ini bertujuan untuk mengidentifikasi dan menganalisis pengaruh kualitas pelayanan terhadap tingkat kepuasan pasien di Rumah Sakit Lamaddukkelleng Sengkang Kabupaten Wajo. Rumah sakit tersebut sebagai instansi pelayanan publik dihadapkan pada tantangan utama terkait ketidaksesuaian pelayanan dengan harapan pasien. Dalam upaya menjaga kepercayaan dan kepuasan pasien, Rumah Sakit Lamaddukkelleng Sengkang dituntut untuk meningkatkan kualitas pelayanannya. Penelitian menggunakan pendekatan kuantitatif dengan mengumpulkan data primer melalui kuesioner yang disebarluaskan kepada 89 pasien rawat inap. Hasil analisis statistik menggunakan SPSS 26.0 menunjukkan bahwa kualitas pelayanan memiliki pengaruh signifikan terhadap tingkat kepuasan pasien. Korelasi antara variabel kualitas pelayanan dan kepuasan pasien sebesar 0,368 menunjukkan pengaruh positif



dan lemah. Hasil analisis juga menunjukkan bahwa secara keseluruhan, kualitas pelayanan berada pada kategori cukup baik, dengan beberapa indikator yang perlu ditingkatkan untuk mencapai tingkat sangat baik. Sementara itu, tingkat kepuasan pasien secara keseluruhan dinilai baik, namun tetap ada ruang untuk perbaikan. Hasil penelitian ini memberikan gambaran yang komprehensif mengenai hubungan antara kualitas pelayanan dan kepuasan pasien di Rumah Sakit Lamadukkelleng Sengkang, memberikan landasan untuk pengembangan strategi perbaikan dan peningkatan pelayanan di masa depan.

Kata Kunci: Kualitas Pelayanan, Kepuasan Pasien, Rumah Sakit Lamadukkelleng.

INTRODUCTION

This research is associated with the legal framework and societal needs in the context of healthcare services, particularly at Lamadukkelleng Hospital in Sengkang, Wajo District. Law No. 36 of 2009 on health provides a strong basis for improving healthcare services by stipulating that health is a component of welfare that must be achieved in accordance with Indonesia's national ideals. In the context of hospitals, this legislation emphasises the need to protect all Indonesian citizens and advance public welfare through the provision of quality healthcare services.

In the current era, health has become an essential need for society, demanding maximum efforts to ensure excellent healthcare services. With the improved standard of living, the community perceives the quality of healthcare services as a crucial element in meeting their basic needs. Lamadukkelleng Hospital, as a healthcare service provider in Wajo District, has a moral and ethical responsibility to continually improve the quality of its services. As a healthcare hub in the region, this hospital not only determines individual health but also contributes to overall community welfare. Therefore, enhancing service quality at Lamadukkelleng Hospital is not merely an internal institutional need but also a responsibility to the community relying on its services to ensure their health and well-being.

Lamadukkelleng Hospital not only functions as a healthcare service institution but also as the Technical Implementation Unit (UPT) of the Wajo District Health Office. In its capacity as a UPT, the hospital plays a strategic role as a means to support community welfare, making a tangible contribution to health development in the district. With its dual function, the hospital serves as a primary agent in advancing community health by functioning as a centre for community health development, conducting community empowerment programmes, and serving as a referral service center. The success of Lamadukkelleng Hospital in fulfilling this dual role not only reflects its healthcare service quality but also how effectively it can drive positive change in meeting the health and welfare needs of Wajo District. Hence, improving service quality and its function as a UPT are essential to supporting sustainable health development.

A key factor in providing quality healthcare services is the role played by healthcare professionals. Doctors, nurses, and other healthcare personnel play a central role in creating a satisfying service experience for patients. The skills, empathy, and effective communication of healthcare professionals are crucial in building a trusting relationship between patients and healthcare providers. Therefore, the quality of healthcare services can be measured through patient and family satisfaction levels. Patients and their families, as the primary consumers of healthcare services, provide valuable perspectives to assess how well hospitals meet their expectations and needs. Therefore, improving service quality lies not only in physical facilities or medical technology but also in enhancing the competence and engagement of healthcare professionals in providing holistic and patient-centred care. By understanding the key role of healthcare professionals in delivering quality healthcare services, hospitals can design strategies to improve patient satisfaction and overall service quality.



Lamaddukkelleng Hospital in Sengkang, as the largest referral hospital in Wajo District, plays a crucial role in providing healthcare services to the community. However, observations by researchers in the field indicate symptoms indicating a low quality of service, especially for inpatients. Several indicators of suboptimal service quality involve aspects such as limited healthcare staff, both specialists and general practitioners. These limitations can affect the hospital's ability to provide optimal healthcare services, especially in handling critical cases that require specialised expertise. Despite relatively good hospital facilities, there are still several limitations, particularly concerning the capacity of Class III treatment rooms. This condition can impact bed availability and prompt service for inpatients. Moreover, complex service procedures and the slow responsiveness of healthcare professionals also pose barriers to effective service delivery. Complex service processes can increase patient and family confusion, while slow responsiveness can delay the diagnosis and treatment process. Therefore, a deep understanding of these factors is crucial to designing concrete improvement strategies that can enhance service quality at Lamaddukkelleng Hospital in Sengkang.

Patient visit data over the last three months, reaching 7,587 patients, indicates a high demand for treatment at Lamaddukkelleng Hospital. Although the high number of visits reflects community trust in this hospital as a healthcare service provider, this research focuses on challenges related to service quality. By understanding critical aspects affecting patient experience, this research aims to provide in-depth insights that can serve as a basis for future improvements and enhancements in service delivery. High demand for healthcare services creates greater demands on Lamaddukkelleng Hospital to continually improve efficiency, responsiveness, and service quality. By detailing areas that need improvement, such as service procedures and the responsiveness of healthcare professionals, this research can offer concrete recommendations to enhance service quality, which in turn can meet the high expectations of patients and the community for this hospital.

This research aims to address identified constraints by identifying factors influencing service quality and patient satisfaction at Lamaddukkelleng Hospital. The primary focus of the research is on aspects that have shown significant impacts, such as the number of healthcare professionals, hospital facilities, service procedures, and responsiveness of healthcare professionals. By deeply understanding the dynamics of healthcare services at the hospital, this research aims to formulate specific and sustainable improvement recommendations.

Identification of these key factors is expected to provide a more accurate picture of existing issues and provide a strong basis for targeted improvement strategies. Thus, this research is directed towards making a real contribution to enhancing the quality of healthcare services at Lamaddukkelleng Hospital, creating a more efficient and responsive environment, and achieving optimal patient satisfaction levels. By combining empirical data with comprehensive reviews, this research is expected to serve as a foundation for significant positive changes in healthcare service management at the hospital.

METHODS

Location, Time, and Type of Research

This research will be conducted over a period of 3 months at Lamaddukkelleng Hospital in Sengkang, Wajo District. This hospital was chosen because, as a public service institution, it frequently receives numerous public complaints and is also an interesting location to obtain information regarding service quality standards. This research employs a survey research type with a descriptive-quantitative approach. The quantitative approach is used because this study involves numerical data, while the descriptive approach is used to describe the research object and findings without conducting analyses and drawing general conclusions.



Variables and Operational Definitions of the Research

Independent Variables (Service Quality):

1. **Simplicity:** The hospital service process is straightforward, easy to understand, and easy to implement.
2. **Clarity:** Details of service costs and hospital payment procedures are clear, and the hospital can resolve complaints and claims in service implementation.
3. **Timeliness:** Hospital services can be completed on time.
4. **Accuracy of Public Service Products:** Products provided must be accurate, correct, appropriate, and valid.
5. **Completeness of Facilities and Infrastructure:** Availability of adequate working facilities and infrastructure.
6. **Security:** Priority is placed on the security of hospital service products and legal certainty.
7. **Responsibility:** Persons responsible for hospital service implementation and resolving complaints and disputes.
8. **Accessibility:** easily accessible location or place, adequate facilities, and utilization of technology, telecommunications, and informatics.
9. **Discipline, Politeness, and Friendliness:** Hospital service providers must demonstrate disciplined, polite, courteous, and friendly attitudes and provide service wholeheartedly.
10. **Comfort:** The hospital service environment is orderly; waiting areas are comfortable, neat, and have complete supporting facilities.

Dependent Variables (Patient Satisfaction):

1. **Doctor Performance:** Doctor Behavior in Medical Services.
2. **Nurse Performance:** Nurse behavior in medical and non-medical services.
3. **Physical Condition:** Hospital Facility Condition, Beauty, and Comfort.
4. **Service Administration System:** Hospital Service Arrangement Process.
5. **Financing:** payment in accordance with services received by patients.
6. **Patient health condition:** diagnosis of disease progression, treatment process, and medical procedures.

Operational Definitions in this Study:

1. Service Quality

The level of service excellence that meets the needs and desires of patients at Lamaddukeleng Hospital involves dimensions of simplicity, clarity, timeliness, accuracy of public service products, completeness of facilities and infrastructure, security, responsibility, accessibility, discipline, politeness, friendliness, and comfort.

2. Level of Patient Satisfaction

Patients' satisfaction is due to the fulfillment of their needs and desires when receiving services at Lamaddukelleng Hospital, involving doctor performance, nurse performance, physical condition, service administration system, financing, and patient health condition.

Population, Sample, and Respondents

This study targets a population of 794 inpatient patients at Lamaddukkelleng Hospital in 2021. Using a simple incidental sampling technique, a sample of 89 inpatient patients was selected to represent the population. The research instrument used is a checklist-format questionnaire, which will be distributed to respondents who are inpatient patients. The primary objective of selecting this sample is to obtain a representative view of patient perspectives on service quality at the hospital, enabling researchers to detail critical aspects that may deeply influence patient satisfaction levels.



Data Collection Technique

The data collection method in this study includes three main aspects. Firstly, observations are conducted by directly observing the research object and the regional conditions at Lamadukkelleng Hospital, allowing researchers to understand the situation in more detail. Secondly, 89 questionnaires in checklist format are distributed to inpatient patients, using questionnaire or survey methods as tools to explore direct views and responses from respondents. Lastly, documentation data collection involves relevant information on the influence of service quality on patient satisfaction levels, extracted from documents related to research at Lamadukkelleng Hospital.

Data Collection and Analysis Technique

Descriptive analysis in this study aims to provide an overview of the research object through sample data, facilitating an in-depth understanding of the observed phenomenon. Meanwhile, quantitative associative analysis consists of several approaches. Firstly, correlation analysis is used to measure the relationship between independent and dependent variables, providing insights into the extent of the linkage between service quality and patient satisfaction. Secondly, simple regression test analysis uses a regression mathematical model to determine the values of a and bX , which are useful in understanding the impact of independent variables on dependent variables. Lastly, the t-test is used to test the truth of hypothesised statements or assumptions, helping to confirm the relevance of research findings.

RESULTS AND DISCUSSION

Results

Descriptive Research Results

This study focuses on two main variables. First, service quality, which is divided into dimensions of simplicity, clarity, timeliness, accuracy of public service products, completeness of facilities and infrastructure, security, responsibility, accessibility, discipline (politeness and friendliness), and comfort. Second, patient satisfaction variables encompass doctor performance, nurse performance, physical condition, service administration system, financing, and patient health condition. Descriptive analysis of these variables aims to provide a detailed overview of these aspects, gain in-depth understanding, and evaluate patient satisfaction levels based on the service quality received at Lamadukkelleng Hospital in Sengkang, Wajo District.

Frequency Distribution of Variable Data

Based on the analysis of research variable data, the data description of these research variables is as follows:

Table 1

Description of the Frequency Distribution of Variable Data X and Y

Statistics		Service Quality	Patient Satisfaction
N	Valid	89	89
	Missing	0	0
Mean		50.62	35.13
Median		51.00	35.00
Mode		52	33 ^a
Std. Deviation		2.720	2.616
Variance		7.398	6.845
Range		15	14



Minimum	42	28
Maximum	57	42
Sum	4505	3127

Multiple modes exist. The smallest value is shown

Source: Data processed using SPSS 26.0

The table above depicts the results of the research data variable analysis. All respondent answer indicators are considered valid, with no missing data (missing values) and a value of 0, indicating good data processing quality. Focusing on the service quality variable, a mean of 50.62 indicates the average value diversity across dimensions of simplicity, clarity, timeliness, product accuracy, facility completeness, security, responsibility, accessibility, discipline, politeness, friendliness, and comfort. The relatively small standard deviation (2.720) indicates a high level of consistency among respondents. Meanwhile, for the patient satisfaction variable, a mean of 35.13 reflects the level of patient satisfaction across dimensions of medical staff performance, physical condition, administrative system, and other factors. The low standard deviation (2.616) indicates a high level of consistency in patient satisfaction assessments. All descriptive statistics provide a comprehensive overview of data distribution and variation in this study.

Descriptive Variable Statement Details Score

Service Quality Variable Statement Details Score (X)

Results of calculation of service quality variable scores (x) at Lamadukkelleng Sengkang Hospital, Wajo District:

Table 2
Service Quality Variable Statement Details Score (X)

No.	Score Obtained	Score Ideal	Criteria	Score Calculation
1	299	445	Fairly Good	The obtained score is the sum of the scores for each item in the in the question.
2	278	445	Fairly Good	
3	361	445	Good	
4	299	445	Fairly Good	Ideal score: highest value x number of respondents
5	317	445	Fairly Good	
6	284	445	Fairly Good	Clarification of respondents' attitude calculations by Eko Putro Widoyoko (2012: 110)
7	275	445	Fairly Good	
8	278	445	Fairly Good	>373,8 – 445 = Very Good
9	250	445	Fairly Good	
10	278	445	Fairly Good	>3026 – 373,8 = Good
11	256	445	Fairly Good	
12	240	445	Fairly Good	>231,4 – 3026 = Fairly Good
13	253	445	Fairly Good	
14	279	445	Fairly Good	>160,2 – 231,4 = Not Good
15	246	445	Fairly Good	
16	312	445	Good	89 – 160,2 = Very Not Good
Σ	4505	7120	Fairly Good	

Source: Primary Data After Processing.

Based on the table, the Quality of Service variable at Lamadukkelleng Sengkang Hospital overall shows the category "Pretty Good" with a score of 4505 from the ideal score of 7120. Details of the analysis show that of the 16 indicators in the Service Quality variable, only 2 indicators fall into the



"Good" category, i.e. indicators number 3 and 16. Meanwhile, the other 14 indicators are in the category of "Prost Good," involving numbers 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, and 15. These results provide a comprehensive overview of the extent to which Lamaddukkelleng Sengkang Hospital meets the service quality standards measured by each indicator.

Patient Satisfaction Variable Statement Details Score (Y)

Results counting patient satisfaction variable scores (Y) at Lamaddukkelleng Sengkang Hospital, Wajo District, as follows:

Table 3
Patient Satisfaction Variable Statement Details Score (Y)

No.	Obtained Score	Ideal Score	Criteria	Score Calculation
1	378	445	Very Good	Score obtained is the number of scores per question item. Ideal Score: Highest Value X Number of Respondents Clarification of attitude of respondents Eko Putro Widoyoko calculation (2012 : 110)
2	292	445	Fairly Good	
3	315	445	Good	
4	282	445	Fairly Good	
5	337	445	Good	
6	314	445	Good	
7	325	445	Good	
8	277	445	Fairly Good	
9	316	445	Good	
10	291	445	Fairly Goo	
Σ	3127	4450	Good	>373,8 – 445 = Very Good >3026 – 373,8 = Good >231,4 – 3026 = Fairly Good >160,2 – 231,4 = Not Good 89 – 160,2 = Very Not Good

Source: Primary Data After Processing.

Based on the table, the patient satisfaction variable at Rumah Sakit Lamaddukkelleng Sengkang Kabupaten Wajo overall shows a "good" category with a score of 3127 out of an ideal score of 4450. Detailed analysis indicates that out of 10 indicators in the patient satisfaction variable, 1 indicator falls into the "very good" category, namely number 1. Additionally, 5 indicators fall into the "good" category, involving numbers 3, 5, 6, 7, and 9, while the remaining 4 indicators fall into the "fairly good" category, namely numbers 2, 4, 8, and 10. These results provide an overview of how satisfying the services at Rumah Sakit Lamaddukkelleng Sengkang Kabupaten Wajo are based on patient responses to various measured aspects.

Statistical Data Analysis

Correlation Coefficient Analysis

To determine the relationship (correlation = r) between Service Quality and Patient Satisfaction at Rumah Sakit Lamaddukkelleng Sengkang Kabupaten Wajo, the researcher conducted correlation analysis (Pearson Correlation) using SPSS version 26. The correlation analysis results indicate the extent to which the Service Quality variable correlates with the Patient Satisfaction variable. The correlation coefficient (r) can range from -1 to 1. A positive value indicates a positive relationship, while a negative value indicates a negative relationship. These correlation results can provide insights into whether an improvement in Service Quality correlates with an increase in Patient Satisfaction or vice versa.



Table 4
Correlation Analysis

Correlations		Service Quality	Patient Satisfaction
Service Quality	Pearson Correlation	1	.368**
	Sig. (2-tailed)		0.000
	N	89	89
Patient Satisfaction	Pearson Correlation	.368**	1
	Sig. (2-tailed)	0.000	
	N	89	89

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Data processed using SPSS 26.0

Based on the data processing results above, it is evident that the relationship between the service quality variable and patient satisfaction is weak, with a correlation coefficient value of 0.368. This value indicates the extent to which the service quality variable correlates with patient satisfaction. With a positive value, the relationship is positive, suggesting that an improvement in service quality can contribute to an increase in patient satisfaction, although the correlation level is relatively low. This analysis provides an overview of how improvements in aspects of service quality in hospitals can have a positive impact, although other factors may also play a role in enhancing patient satisfaction.

Simple Linear Regression Test

Simple linear regression is a statistical method used to measure the extent to which one independent variable (X) influences a dependent variable (Y). The general formula for the simple linear regression equation is $Y = a + bX$, where Y is the dependent variable, X is the independent variable, a is the intercept (constant), and b is the regression coefficient. In simple linear regression analysis, the output table provides critical information about the regression coefficient values. The value of a represents the intercept on the Y-axis when $X = 0$, and the value of b indicates how much the dependent variable Y changes due to a one-unit change in the independent variable X. The output table helps researchers assess the statistical significance and strength of the relationship between variables X and Y and provides crucial information for interpreting regression results.

Tabel 5
Simple Linear Regression

Coefficients ^a				Standardized Coefficients	T	Sig.
Model				Beta		
1	(Constant)	17.206	4.860		3.540	0.001
	Service Quality	0.354	0.096	0.368	3.694	0.000

Dependent Variable: Patient Satisfaction.

Source: Data processed using SPSS 26.0



1. $a = 17.206$: This number represents the constant or intercept in the regression equation. In this context, if the service quality variable (X) has a value of 0, then the constant patient satisfaction (Y) will be 17.206. In other words, the value of a indicates the initial value of patient satisfaction when service quality (X) is equal to zero.
2. $b = 0.354$: The regression coefficient (b) indicates how much change in the patient satisfaction variable (Y) is caused by a one-unit change in the service quality variable (X). In this case, each increase of one unit in service quality (X) will increase patient satisfaction (Y) by 0.354. Therefore, it can be concluded that service quality (X) has a positive influence on patient satisfaction (Y). The regression equation can be formulated as $Y = 17.206 + 0.354X$.

Coefficient of Determination (R²) Test:

The coefficient of determination (R²) is a statistical measure indicating how well the regression model explains the variation in the dependent variable (Y). The value of R² ranges between 0 and 1, where a higher R² value indicates a better fit of the model in explaining the variability of Y. Specifically, R² represents the proportion of variation in the dependent variable that is explained by the independent variables in the model.

For example, if R² has a value of 0.8, it means that 80% of the variation in Y can be explained by the independent variables included in the model. In other words, the closer the value is to 1, the greater the contribution of the independent variable to the variation in the dependent variable. R² serves as an important tool for evaluating the fit of the regression model to empirical data.

Table 6
R² Test

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.368 ^a	0.136	0.126	2.446

Predictors: (Constant), Service Quality.
Source: Data processed using SPSS 26.0

From a determination test that showed an R-square value of 0.136%, it can be concluded that there is an influence of a free variable, namely Quality of Service, on a bound variable namely Satisfaction of the Patient. A value of 0,136% indicates that approximately 13.6% of the variation in Patient satisfaction can be explained by variations in Service Quality. This means that a small part of the patient satisfaction variation can be attributed or described by a change in Service quality. However, the majority of changes in Patients satisfaction (about 86.4%) are still influenced by other factors that are not included in this regression model. Therefore, despite the influence, there are other factors still playing a role in explaining variations of Patient Satisface that can not be described with Quality of Services.

t Test

A statistical test performed to determine whether a free variable (X) has a partially significant relationship to a bound variable(Y) is called a partial statistical trial or partial trial. In the context of linear regression analysis, partial tests can be performed to test the significance of each free variable against the bound variable, whileining the other variable constant.

In this process, a hypothetical test is performed for each free variable separately. The zero hypothesis (H₀) states that there is no partial relationship between a free variable and a bound variable, while the alternative hypotheses (H₁) state that there are significant partial relationships.

The partial test results can provide information about the contribution of each free variable to the variability of the bound variable, and this helps in understanding the extent to which each freelance variable individually affects the binding variable.



Table 7
t Test

Coefficients ^a				Standardized Coefficients	t	Sig.
Model				Beta		
1	(Constant)	17.206	4.860		3.540	0.001
	Service Quality	0.354	0.096	0.368	3.694	0.000

Dependent Variable: Patient Satisfaction.
Source: Data processed using SPSS 26.0

In the context of the t-test results on the influence of Quality of Service (X) on Patient Satisfaction (Y), we observed a t-value of 3,694 compared to a table t value of 1,98761. A t count value greater than the t value of the table indicates that there is a significant difference between the observed group and the control group.

In this case, because the count t value exceeds the critical t value of the table, the zero hypothesis (Ho) that states that there is no influence between Quality of Service and Patient Satisfaction is rejected.

Thus, it can be concluded that Quality of Service has a partial and significant influence on Patient Satisfaction based on the results of the tests carried out.

Significance Test

In statistical research, the level of significance or alpha (α) is generally set at a certain value, such as 0.05 or 5%. This value defines the boundary in which we determine whether a research result or difference between groups is significant enough or not. In general, if the p value (significance test result) is less than the given α , we reject the zero hypothesis (Ho) and consider the result significant.

In the context of this study, with an α value of 0.05, this means that the significance test result between a free variable and a bound variable is considered significant if the p value is less than 0.05. In other words, if the test results indicate that the chance of occurrence of a randomly found result (p-value) is lower than 0.05, we can conclude that the difference between a group of free variables and binding variables is significant.

Table 8
Significance Test

ANOVA ^a		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	81.672	1	81.672	13.646	.000 ^b
	Residual	520.710	87	5.985		
	Total	602.382	88			

a. Dependent Variable: Patient Satisfaction.
b. Predictors: (Constant), Service Quality.
Source: Data processed using SPSS 26.0

Results show that the regression model overall is significant ($F = 13.646, p < 0.05$), and at least one predictor variable (service quality) significantly contributes to explaining the variance in the dependent variable (patient satisfaction).



Discussion

Research on the impact of service quality variables on patient satisfaction at Lamadukkelleng Sengkang Hospital, Wajo District, provides a comprehensive overview of healthcare service conditions in the area. Statistical data analysis reveals relevant findings for improving and enhancing service quality and patient satisfaction.

From the analysis of service quality variable data, it is observed that overall, this variable falls into the category of "good" with a score of 4505, but certain indicators can be enhanced or improved to achieve the "very good" category. Therefore, special attention needs to be given to specific aspects such as simplicity, clarity, timeliness, accuracy of public service products, completeness of facilities and infrastructure, security, responsibility, ease of access, discipline, as well as politeness and friendliness.

Meanwhile, for the patient satisfaction variable, data analysis results indicate that overall, this variable is in the "good" category with a score of 3127. This signifies that the services provided at Lamadukkelleng Sengkang Hospital, Wajo District, have generally satisfied patients. However, continuous attention is necessary to maintain and improve each indicator contributing to patient satisfaction, such as the performance of doctors and nurses, physical conditions, service administration systems, financing, and patient health conditions.

Correlation analysis shows a weak relationship between service quality and patient satisfaction variables, with a correlation value of 0.368. Despite this weak relationship, it is positive and significant. This reaffirms that improving service quality has the potential to enhance patient satisfaction, although other factors may also influence patient satisfaction.

In the context of Gaspersz (2017) and Essiam (2013) theories, the variables focused on in the study have been well-analyzed. The conclusions drawn from the research provide a comprehensive view of healthcare service conditions at Lamadukkelleng Sengkang Hospital, Wajo District. Improvements and enhancements based on these findings can have a positive impact on patient satisfaction and overall healthcare service quality in the region.

CONCLUSION

Conclusion

Based on the research findings regarding service quality and inpatient satisfaction levels at Lamadukkelleng Sengkang Hospital, Wajo District, several important conclusions can be drawn:

1. The quality of inpatient service at the hospital falls into the "fairly good" category. However, improvements and enhancements in certain aspects of service quality should be prioritized to raise standards to a higher level.
2. The level of inpatient satisfaction at Lamadukkelleng Sengkang Hospital, Wajo District, is rated as "good.". This indicates that the efforts made by the hospital have been successful in providing satisfaction to patients, although there is still room for further improvement.
3. Correlation analysis indicates that the influence of service quality on inpatient satisfaction is positive yet weak, with a correlation value of 0.368. Despite the weak relationship, the positive influence suggests that improvements in service quality can have a positive impact on patient satisfaction.

These conclusions serve as a basis for the hospital to identify areas that need improvement to provide more satisfying services to inpatient patients in the future.



Recommendations

Based on the research findings regarding service quality and patient satisfaction levels at Lamaddukkelleng Sengkang Hospital, Wajo District, the following three recommendations can be made to enhance service quality and patient satisfaction:

1. Considering the finding that service quality is rated as "fairly good," it is recommended that the hospital focus on improving aspects that can elevate standards further. A deep evaluation of dimensions such as simplicity, clarity, timeliness, accuracy of service products, and completeness of facilities and infrastructure should be prioritized. Training and enhancing staff competence, as well as maintaining facilities and infrastructure, can help achieve superior service quality.
2. Despite patient satisfaction being rated as "good," there is still room for further improvement. The hospital can conduct regular patient satisfaction surveys to gain deeper insights into patient needs and expectations. Improving the performance of medical and nursing staff, enhancing service administration systems, and improving financing quality should be prioritized to enhance overall patient satisfaction.
3. Despite the positive yet weak correlation between service quality and patient satisfaction, the hospital should continue monitoring and improving related aspects. Implementing changes based on patient feedback can enhance this correlation. Training programs for staff to improve service and patient interaction can also strengthen the relationship between service quality and patient satisfaction.

By implementing these recommendations, Lamaddukkelleng Sengkang Hospital, Wajo District, can continue to elevate its service standards, provide higher satisfaction to patients, and build a closer relationship between service quality and patient satisfaction in the future.

REFERENCES

- Amin, M., & Zahora Nasharuddin, S. (2013). Hospital service quality and its effects on patient satisfaction and behavioural intention. *Clinical Governance: An International Journal*, 18(3), 238-254.
- Baali, Y., et al. (2023). *Manajemen Kualitas*. Get Press Indonesia.
- Djadjuli, D. (2019). Total Quality Service. *Dinamika: Jurnal Ilmiah Ilmu Administrasi Negara*, 5(4), 71-78.
- Gaspersz, Vincent. 2017. *Manajemen Kualitas dalam Industri Jasa*. Jakarta: PT. Gramedia Pustaka Utama.
- Hardiyansyah. 2018. *Kualitas pelayanan publik: konsep, dimensi, indikator dan implementasi*. Yogyakarta: Gava Media.
- Hasnih. dkk. 2016. Pengaruh lima dimensi kualitas pelayanan publik terhadap tingkat kepuasan masyarakat. *Jurnal Mirai Management*. Volume 1 nomor 2.
- Huriyah, L. (2016). Penerapan Total Quality Management (TQM) Dalam Peningkatan Mutu Layanan Publik UIN Sunan Ampel Surabaya. *JOIES (Journal of Islamic Education Studies)*, 1(2), 303-332.
- Kusumastuti, A., Khoiron, A. M., & Achmadi, T. A. (2020). *Metode penelitian kuantitatif*. Deepublish.
- Landy, D. (1977). Culture, disease and healing. *Studies in medical anthropology*, 467.
- Lay, A. B. (2021). *Manajemen pelayanan*. PBM ANDI.
- Raharjo, M. M. I. (2022). *Manajemen Pelayanan Publik*. Bumi Aksara.
- Riani, N. L. T., & Putra, M. S. (2017). *Pengaruh stres kerja, beban kerja dan lingkungan kerja non fisik terhadap turnover intention karyawan* (Doctoral dissertation, Udayana University).



- Rosalia, K. J., & Purnawati, N. K. (2018). *Pengaruh Kualitas Pelayanan Terhadap Kepuasan Pasien RSUD Surya Husadha di Denpasar* (Doctoral dissertation, Udayana University).
- Santoso, S. (2016). *Panduan lengkap SPSS versi 23*. Elex Media Komputindo.
- Sari, L. M., & Nashrulloh, D. (2022). *Manajemen Mutu Pelayanan Kesehatan*. CV. Mitra Cendekia Media.
- Sari, M., et al. (2022). *Metodologi penelitian*. Global Eksekutif Teknologi.
- Sudarsono, H. (2020). *Manajemen Pemasaran*. Pustaka Abadi.
- Supartiningsih, S. (2017). Kualitas pelayanan kepuasan pasien rumah sakit: kasus pada pasien rawat jalan. *Jurnal medicoeticolegal dan manajemen rumah sakit*, 6(1), 9-15.
- Unaradjan, D. D. (2019). *Metode penelitian kuantitatif*. Penerbit Unika Atma Jaya Jakarta.





FACTORS INFLUENCING INFORMATION TECHNOLOGY-BASED ADMINISTRATIVE SERVICES AT THE AMBON RELIGIOUS TRAINING CENTER

FAKTOR-FAKTOR YANG MEMPENGARUHI PELAYANAN ADMINISTRASI BERBASIS TEKNOLOGI INFORMASI PADA BALAI DIKLAT KEAGAMAAN AMBON

Kezia Risly Titarsole¹, Hengky V. R. Pattimukay², Julia Th. Patty³

^{1,2,3}Pattimura University

keziat557@gmail.com¹

hevrich70@gmail.com²

juliapatty321@gmail.com³

Abstract

This research is a qualitative study aimed at evaluating the quality of information technology-based administrative services and identifying influencing factors at the Ambon Religious Training Center. The background of this research stems from constraints in human resources, limited management of administrative technology, and inadequate information technology infrastructure. Involving seven key informants, the research utilizes data collection techniques such as interviews and observations. The findings reveal that information technology-based administrative services at the Ambon Religious Training Center have not yet reached an optimal level of satisfaction. Evaluation is conducted using indicators of transparency, participation, and efficiency. Inhibiting factors involve limitations in human resources management of administrative technology, while supporting factors include efforts to improve information technology infrastructure. The implications of these findings can serve as a basis for designing strategies to enhance information technology-based administrative services in similar institutions, with the hope of improving transparency, participation, and efficiency in such services. This research provides a significant contribution to understanding the dynamics of implementing information technology in the context of religious administration.

Keywords: Administrative Services, Information Technology, Ambon Religious Training Center.

Abstrak

Penelitian ini merupakan penelitian kualitatif yang bertujuan untuk mengevaluasi kualitas pelayanan administrasi berbasis Teknologi Informasi dan mengidentifikasi faktor-faktor yang mempengaruhinya di Balai Diklat Keagamaan Ambon. Latar belakang penelitian ini adalah adanya kendala dalam sumber daya manusia yang terbatas dalam mengelola teknologi administrasi, serta infrastruktur Teknologi Informasi yang kurang memadai. Dengan melibatkan 7 informan kunci, penelitian ini menggunakan teknik pengumpulan data berupa wawancara dan observasi. Hasil penelitian menunjukkan bahwa pelayanan administrasi berbasis Teknologi Informasi di Balai Diklat Keagamaan Ambon masih belum mencapai tingkat kepuasan yang optimal. Evaluasi dilakukan dengan menggunakan indikator transparansi, partisipasi, dan efisiensi. Faktor-faktor penghambat melibatkan keterbatasan sumber daya



manusia dalam mengelola teknologi administrasi, sementara faktor pendukung mencakup upaya peningkatan infrastruktur Teknologi Informasi. Implikasi dari temuan ini dapat digunakan sebagai dasar untuk merancang strategi perbaikan pelayanan administrasi berbasis Teknologi Informasi di institusi sejenis, dengan harapan dapat meningkatkan transparansi, partisipasi, dan efisiensi dalam pelayanan tersebut. Penelitian ini memberikan kontribusi penting dalam memahami dinamika implementasi Teknologi Informasi dalam konteks administrasi keagamaan.

Kata Kunci: Pelayanan Administrasi, Teknologi Informasi, Balai Diklat Keagamaan Ambon.

INTRODUCTION

The current life background reflects the unavoidable integration of technology into various aspects, including science, economy, and culture. Since using traditional tools, society has transitioned to modern technologies like cables and computers. Significant changes have occurred in various sectors, including education, government, the economy, and technology. Technological advancements facilitate communication without geographical boundaries, with the global community using devices like mobile phones, laptops, netbooks, and other gadgets.

The development of information and communication technology has transformed human life, including public services organized by the government. This technology becomes a crucial key for institutions or organizations to enhance public services through applications and web browsers, optimizing data processing, and saving time, space, and costs. The implementation of e-government in public services becomes a demand and an obligation according to national policy regulated by Presidential Decree No. 3 of 2003. Its focus is to improve the quality of public services, promote transparency and efficiency, and create good governance.

Human resources play a crucial role in building government order. Employees who work according to their duties, functions, and responsibilities become the driving force in the governmental organizational system. However, in the context of office administration and human resources, the challenge lies in understanding digital technology. This condition creates a need for human resources who understand digital technology, have educational qualifications, office administration competence, interpersonal skills (soft skills), and mastery of digital technology.

Unfortunately, technological development is not always balanced with adequate human resources. Companies and institutions in the technology sector view human resources as important assets, desiring individuals with good abilities and potential. Amidst the rapid development of digital technology, office administration human resources must meet qualifications, competence, interpersonal skills, and digital technology mastery requirements.

The Ambon Religious Training Center, for example, has faced challenges in implementing technology-based administrative services. Although they have developed the SIMDIKLAT application to accelerate training services, there are still obstacles related to understanding information technology and limited infrastructure. The main issues are the limitations of human resources in understanding the application and infrastructure constraints due to budget constraints. In this context, programs or policies are needed to address these issues and improve the efficiency and quality of technology-based administrative services.

Based on the research background described, several main problems can be identified in the implementation of technology-based administrative services at the Ambon Religious Training Center:

1. Limitations in Understanding and Qualifications of Human Resources:



Das Sein: There are challenges in understanding information technology by human resources, especially in office administration. This includes limited educational qualifications and a lack of competence in managing administrative technology.

Das Sollen: Efforts are needed to improve human resource understanding of digital technology. Training and skill development in information technology need to be strengthened to make them more adaptive to technological advancements.

2. Limitations of Information Technology Infrastructure:

Das Sein: Information technology infrastructure at the Ambon Religious Training Center is still limited, mainly due to budget constraints. This causes technology-based administrative services to not be provided simultaneously and optimally.

Das Sollen: Strategies are needed to overcome budget constraints so that information technology infrastructure can be gradually updated. Improving this infrastructure is expected to support more efficient administrative services.

3. Challenges in Improving Service Quality:

Das Sein: Technology-based administrative services at the Ambon Religious Training Center have not yet reached optimal satisfaction levels. Evaluations using indicators of transparency, participation, and efficiency show limitations in these aspects.

Das Sollen: Policies or programs are needed to improve the quality of technology-based administrative services. The focus should include enhancing transparency, participation, and efficiency to achieve good governance.

4. Problems in Human Resource Management:

Das Sein: Human resource management in public services often becomes an obstacle, including in the placement of personnel. Human resource competence can hinder the performance improvement of state apparatus in public services.

Das Sollen: Human resource management needs to be improved to enhance public service quality. This involves placing personnel according to the competence possessed by each human resource.

5. Mismatch between Needs and Availability of Technology:

Das Sein: The Ambon Religious Training Center faces a mismatch between information technology needs and the availability of human resources who understand these applications.

Das Sollen: Steps are needed to align technological needs with the understanding and availability of human resources. Training and skill development are key to overcoming this mismatch.

These issues indicate that there are significant challenges in implementing technology-based administrative services at the Ambon Religious Training Center. By identifying these problems, it is hoped that appropriate policies or strategies can be designed to improve the efficiency and effectiveness of quality administrative services.

The research questions derived are as follows:

1. What are the actual conditions (Das Sein) of technology-based administrative services at the Ambon Religious Training Center?
2. What are the factors that hinder the understanding and qualifications of human resources towards information technology in the office administration field at the Ambon Religious Training Center?
3. How do the limitations of information technology infrastructure, especially due to budget constraints, affect the provision of administrative services at the Ambon Religious Training Center?



These research questions will focus on exploring deeper information about the conditions, obstacles, and impacts of implementing technology-based administrative services at the Ambon Religious Training Center.

METHODS

The research method used in this study is a qualitative research type, focusing on informational data in the form of verbal sentences. This approach allows the researcher to gain an in-depth understanding of the technology-based administrative services at the Ambon Religious Training Center. The research is conducted at the Ambon Religious Training Center Office from June to July 2023, where the researcher will be actively involved in observing and documenting various aspects of the administrative services.

The study involves seven key informants from various positions at the Ambon Religious Training Center. It uses two types of data: primary data obtained directly from employees and training participants through interviews and observations, and secondary data summarizing information from relevant documents. Data collection techniques include interviews, observation, and document collection, while data analysis is performed through data reduction to identify key patterns and themes. The data analysis results will be presented clearly and comprehensively, with conclusions drawn and verified to ensure the accuracy of interpretations. This method is expected to provide a comprehensive overview of the conditions of technology-based administrative services and the factors influencing them at the Ambon Religious Training Center.

RESULTS AND DISCUSSION

Result

The implementation of information technology at the Ambon Religious Training Center should contribute positively to service improvement, especially for the trainees attending the programs. Unfortunately, various issues, such as limited human resources who understand and manage information technology and infrastructure constraints, hinder the optimization of these services. These challenges create a need for an in-depth review of human resource development at the Ambon Religious Training Center. The research results, which include indicators of technology-based administrative service quality such as transparency, participation, and efficiency, indicate that there is still room for improvement. Intensive training investment is needed to enhance the understanding of information technology among employees. Additionally, improving infrastructure is also a priority to ensure that the implementation of information technology can provide maximum benefits in improving the quality of administrative services at the Ambon Religious Training Center.

Transparency

The implementation of information technology (IT) at the Ambon Religious Training Center is expected to enhance transparency, efficiency, and the participation of the trainees. This effort is reflected in the development of the SIMDIKLAT application, which allows for online registration and training management. However, research findings indicate several challenges that need to be addressed.

Transparency in IT-based administrative services is an important indicator. The SIMDIKLAT application attempts to support transparency by providing information related to the training. Interviews with employees of the Training Center, such as Mr. E.O. and Mr. A.L., indicate that the Ambon Training Center is striving to improve services through technology. However, consistent with the findings, there are obstacles to the use of technology, especially in archiving, which still relies on manual searches.

In human resource development, there is a desire to utilize technology, as expressed by Mr. H.F. T. Although not all departments are using technology yet, the Ambon Training Center has pushed itself



to transition to IT due to the demands of developments and office service requirements increasingly directed towards IT utilization.

Interviews with trainees, such as Mrs. S.R. and Mr. M.L., reveal that the SIMDIKLAT application helps in obtaining information about the training, but there are still challenges in understanding and utilizing the technology.

The transparency of IT-based administrative services is measured by how clearly information is conveyed to participants. It was found that participants are not yet fully accessing SIMDIKLAT and understanding administrative procedures. Therefore, more intensive guidance and mentoring are needed to ensure that participants can utilize the technology effectively.

The online registration process is considered efficient, but there are issues with incomplete administrative requirements. According to Mr. H.L., this problem is more due to participants' lack of knowledge about the necessary administrative requirements than the IT system itself.

From this research, it can be concluded that transparency in IT-based administrative services at the Ambon Religious Training Center has begun to materialize through the SIMDIKLAT application. However, there are still obstacles to participants' understanding and utilization of the technology. Improvement efforts should focus on more intensive socialization, clear guidance, and technology training for employees and trainees. Thus, IT-based administrative services can be more effective, transparent, and provide optimal benefits for all trainees attending programs at the Ambon Religious Training Center.

Participation

Participation in the context of information technology (IT)-based administrative services at the Ambon Religious Training Center emphasizes the ability to deliver information quickly and accurately, as well as the role of employees and trainees in utilizing IT, especially through the SIMDIKLAT application. Although there are positive indications in the use of the application, challenges still arise in human resource management and optimal participation.

Interview results with trainees, such as Mr. M.L., indicate that SIMDIKLAT provides significant benefits in providing information about the training center and allowing trainees to evaluate the trainers. However, out of three trainees interviewed, only one had accessed the application, revealing that there are still challenges in motivating trainees to utilize IT.

Meanwhile, employees of the Ambon Religious Training Center, such as Mr. A.L. and Mr. E.O., highlight the benefits of SIMDIKLAT in speeding up the evaluation process and providing digital certificates to trainees. However, the participatory role of employees is still faced with placement issues that do not match their competencies, particularly in the IT field.

According to Mr. H.T., the specifications of IT-related fields are limited, and employee placements are not optimal. Only one person has an IT educational background, while others are placed according to their expertise or learn autodidactically. Therefore, further efforts are needed to enhance employees' knowledge and skills in managing IT.

Human resource development efforts at the Ambon Religious Training Center involve strategies such as mentoring and sending employees to attend technical guidance or courses. Mr. R.H. and Mr. A.L. emphasize the importance of mentoring and encouraging employees to participate in training to improve their competencies in facing IT developments.

Despite the limitations in knowledge and employee placement, participation is still realized through human resource development efforts. Encouraging employees to attend training and improve their competencies is key to overcoming challenges. Therefore, participation is not only limited to trainees as



service users but also involves employees in ensuring the effectiveness and optimization of IT-based services at the Ambon Religious Training Center.

Thus, concrete steps are needed to increase participation, such as placing employees according to their competencies, intensive training, and comprehensive human resource development efforts. Only by actively involving both parties—employees and trainees—can the IT-based administrative services at the Ambon Religious Training Center achieve the desired level of effectiveness and transparency.

Efficiency

The application of information technology (IT) in administrative services at the Ambon Religious Training Center is expected to optimize efficiency, accelerate services, and improve the quality of information flow to trainees. However, interviews with Mr. A.L. and Mr. E.O. reveal that the available IT infrastructure still has deficiencies, particularly related to internet networks, devices, and servers.

Inadequate IT infrastructure becomes a barrier to achieving service efficiency. In this regard, IT experts at the Ambon Religious Training Center recognize that device capacity is still limited and that the suboptimal server causes dependence on third parties. This condition indicates the need for IT infrastructure development to support fast, accurate, and efficient services.

A similar opinion is expressed by Mr. R.H., who highlights the need for adequate budget allocation for the procurement and development of IT infrastructure facilities. Human resource management also becomes a focus, especially in budgeting to ensure IT infrastructure is continuously updated in line with technological developments.

Efficiency in organizing IT-based administrative services should involve aligning infrastructure with employee needs. However, there are differences between the views of employees and trainees. From the trainees' perspective, as stated by Mr. M.L., IT infrastructure is sufficiently complete, but the limited use of IT facilities is evident from the lack of participant activity in utilizing the application during training.

Employees at the Ambon Religious Training Center have tried to maximize existing resources, such as moving laptops and using mobile phones to support work. However, this is a temporary solution and cannot comprehensively address infrastructure limitations. Moreover, trainees have not fully experienced the availability and benefits of the IT facilities provided by the Ambon Religious Training Center.

Improving the efficiency of IT-based administrative services requires concrete steps, including infrastructure updates, adequate budget allocation, and enhancing human resource capacity. Therefore, cooperation between various related parties, including employees, trainees, and management, is needed in planning and developing IT strategies that can support overall service efficiency.

When planning IT infrastructure development, it is important to consider actual and future needs, including human resource training in managing technology. This joint effort will help the Ambon Religious Training Center achieve the desired administrative service efficiency, optimize the benefits of IT utilization, and improve service quality for trainees.

Supporting Factors in Administrative Services

In providing administrative services to trainees, the Ambon Religious Training Center has shown significant commitment and effort. The development of information technology, particularly through the SIMDIKLAT application, contributes greatly to improving service quality. This application facilitates employees and trainees by providing training evaluation information, participant biodata, training materials, and certificate issuance. The presence of this application makes the administrative process more efficient and transparent, saving time for participants who no longer have to wait long.



Additionally, the maximum effort of non-IT specialist employees to continuously learn and understand technology is a positive step. This high commitment shows a willingness to improve capabilities in accessing technology, which in turn positively impacts administrative services. Maximizing the use of existing technological infrastructure resources is also a key factor in covering infrastructure limitations and allowing the training process to run smoothly. Thus, these factors together create an efficient, transparent, and participant-oriented service environment at the Ambon Religious Training Center.

Inhibiting Factors in Administrative Services

In organizing administrative services at the Ambon Religious Training Center, several inhibiting factors affect the smooth service process. First, the lack of official information from the Center regarding administrative requirements causes participants to bring incomplete requirements. This limitation results in participants' unclear understanding of administrative needs, slowing down the service process.

Next, the limited human resources who understand information technology also become an obstacle. With only one person having an educational background in information technology at the center, managing technology becomes difficult. More personnel knowledgeable in this aspect are needed to optimize IT implementation.

Lastly, the infrastructure supporting IT-based services is still very limited. The lack of laptops, PCs, and networks is a concrete barrier to providing efficient services. Special attention is needed for infrastructure procurement to support the sustainability and effectiveness of IT-based administrative services at the Ambon Religious Training Center.

Discussion

Current Condition of Information Technology-Based Administrative Services

This research reveals positive developments in administrative services at the Ambon Religious Training Center with the application of information technology (IT). The primary application identified as the main catalyst for this change is SIMDIKLAT. SIMDIKLAT plays a crucial role in advancing the efficiency, accessibility, and openness of information related to training at the center.

The SIMDIKLAT application significantly contributes to operational efficiency. Administrative processes that were previously time-consuming and tended to be manual can now be performed quickly and automated through this platform. Participant registration, data management, and training evaluations can be accessed and managed more efficiently, saving time and effort.

Moreover, SIMDIKLAT also positively impacts information accessibility. Trainees can easily access their data, including training information, materials, and evaluations, through this online platform. Information transparency becomes more apparent as participants have direct access to their own data, creating transparency in administrative processes.

The success of SIMDIKLAT in enhancing efficiency and accessibility also reflects efforts to strengthen information openness. Data related to training, administrative procedures, and evaluations can be accessed directly by participants. This helps create a transparent and accountable training environment, allowing participants to be more actively involved in administrative processes.

Overall, the application of IT, especially through SIMDIKLAT, has positively impacted administrative services at the Ambon Religious Training Center. Improved efficiency, accessibility, and information openness help create a training environment that is more adaptive and responsive to the needs of participants, supporting the effective organization of training programs.



Challenges in Understanding and Qualifications of Human Resources in IT

The lack of employees with educational backgrounds in information technology is one of the main obstacles to organizing administrative services at the Ambon Religious Training Center. This research reveals that human resources (HR) who understand and have qualifications in IT are still limited, resulting in challenges in optimizing IT infrastructure management.

The limited number of employees with educational backgrounds in information technology affects the effectiveness and efficiency of IT implementation at the center. Understanding technological developments, application management, and technical issues often become challenges faced. This limited knowledge can hinder the implementation of IT-based administrative services, particularly in terms of maintenance, development, and resolution of emerging technical problems.

To overcome this obstacle, a high level of commitment from employees is required to continuously learn and improve their understanding of information technology. This commitment must be accompanied by a systematic approach to learning, such as continuous training, workshops, or skill development programs. This approach allows employees to progressively improve their qualifications for managing IT infrastructure.

In addressing this qualification gap, it should be emphasized that efforts to develop human resources in IT should be a priority. Encouraging employees to participate in training programs, courses, and other learning activities can help enhance their understanding, strengthen technical skills, and address challenges posed by the lack of competent HR in information technology. Thus, learning and developing HR qualifications in IT not only becomes a necessity but also an investment that supports the advancement of IT-based administrative services at the Ambon Religious Training Center.

Limitations of IT Infrastructure and the Impact of Budget Constraints

The limited information technology (IT) infrastructure at the Ambon Religious Training Center, especially in terms of networks, hardware, and servers, is a major obstacle to organizing administrative services. This research shows that these constraints negatively impact the effectiveness and efficiency of IT implementation at the institution.

In the context of networks, limited access and connectivity can hinder the quick and efficient accessibility of information. This condition can affect the smooth process of registration and data management for trainees. Moreover, limited hardware and servers also create delays in data management, information processing, and the distribution of training results.

The impact of budget constraints is a major factor in the challenges of providing adequate IT infrastructure. Limited financial resources make it difficult for the Ambon Religious Training Center to enhance and optimize IT facilities. The procurement of servers, adequate hardware, and network improvements require significant budget allocation. As a result, budget constraints create obstacles to providing IT infrastructure that meets the institution's needs.

In efforts to improve the efficiency of administrative services, addressing IT infrastructure constraints needs to be a priority. Strategic steps are needed, including increased investment in infrastructure procurement, network capacity improvement, and hardware upgrades. Additionally, seeking alternative funding and implementing efficient budget management policies can help overcome financial limitations in IT infrastructure development. By doing so, the Ambon Religious Training Center can enhance the quality of IT-based administrative services, ensure smoother processes, and meet the expectations of trainees.



CONCLUSION

Conclusion

Based on the research results, it can be concluded that information technology (IT)-based administrative services at the Ambon Religious Training Center have shown positive development, especially with the implementation of the SIMDIKLAT application. This application has significantly contributed to improving the efficiency, accessibility, and transparency of information related to training.

However, there are several challenges that need to be addressed to optimize administrative services. The lack of employees with educational backgrounds in information technology is a major obstacle, leading to limitations in the understanding and qualifications of human resources in IT. The commitment to learning among employees is crucial to bridging this qualification gap.

Limited IT infrastructure, especially in terms of networks, hardware, and servers, is a significant constraint. Budget constraints also complicate efforts to procure adequate infrastructure, resulting in challenges to administrative service efficiency.

To improve services, it is recommended to focus on enhancing employee qualifications in IT. Training programs and human resource development can be solutions to increase employee understanding and skills in technology. Additionally, efficient budget management strategies are needed to address financial limitations in IT infrastructure procurement.

In conclusion, to optimize IT-based administrative services at the Ambon Religious Training Center, improvements are needed in the aspects of human resources, infrastructure, and budget management. Thus, it is expected that services can be more efficient, transparent, and better meet the needs of the trainees.

Recommendations

Based on the conclusions drawn from this research, several recommendations can be proposed to improve IT-based administrative services at the Ambon Religious Training Center:

1. **Enhancing Employee Qualifications and Understanding of IT:** Regular training programs and courses related to IT should be conducted, and employees should be given opportunities to participate in technical guidance or skill training in using the SIMDIKLAT application.
2. **Systematic Approach to IT Learning with Strong Commitment:** Continuous education, internal training, and expanded online learning resources should support the ongoing improvement of IT skills.
3. **Expanding IT Infrastructure:** Efforts should be made to improve the IT infrastructure, especially in network aspects, hardware, and servers. Updating hardware and expanding server capacity should be priorities, considering efficient budget allocation.
4. **Efficient Budget Management:** Clear budget planning, adequate fund allocation, and good financial resource management are needed to support the procurement and maintenance of IT infrastructure.
5. **Collaboration with External IT Experts:** Cooperation with external parties with expertise in information technology can provide assistance and advice for infrastructure improvement. Consulting with experts can help determine appropriate policies and solutions.

By implementing these recommendations, it is hoped that the Ambon Religious Training Center can overcome the identified challenges and enhance IT-based administrative services more effectively and efficiently.



REFERENCES

- Abdussamad, H. Z., & Sik, M. S. (2021). *Metode penelitian kualitatif*. CV. Syakir Media Press.
- Auliya, N. H., et al. (2020). *Metode penelitian kualitatif & kuantitatif*. CV. Pustaka Ilmu.
- Dwiyanto, A. (2021). *Mewujudkan good governance melalui pelayanan publik*. Ugm Press.
- Dwiyanto, A. (2018). *Manajemen Pelayanan Publik: Peduli Inklusif Dan Kolaborasi*. UGM press.
- Hardiyansyah, H. (2018). *Kualitas Pelayanan Publik: Konsep, Dimensi, Indikator dan Implementasinya*. Gava Media.
- Irwansyah, E., & Moniaga, J. V. (2014). *Pengantar Teknologi Informasi*. Deepublish.
- Karim, A., et al. (2020). *Pengantar teknologi informasi*. Yayasan Labuhanbatu Berbagi Gemilang.
- Kasemin, H. K. (2016). *Agresi Perkembangan Teknologi Informasi*. Prenada Media.
- Kusumastuti, A., & Khoiron, A. M. (2019). *Metode penelitian kualitatif*. Lembaga Pendidikan Sukarno Pressindo (LPSP).
- Rachmadi, T., & Kom, S. (2020). *Pengantar Teknologi Informasi (Vol. 1)*. Tiga Ebook.
- Raharjo, M. M. I. (2022). *Manajemen Pelayanan Publik*. Bumi Aksara.
- Rosalin, S., et al. (2022). *Administrasi Perkantoran Berbasis Teknologi Informasi*. Universitas Brawijaya Press.
- Saggaf, S., Said, M. M., & Saggaf, W. S. (2018). *Reformasi Pelayanan Publik di Negara Berkembang (Vol. 1)*. SAH MEDIA.
- Sari, I. N., et al. (2022). *Metode penelitian kualitatif*. Unisma Press.
- Sawir, M. (2020). *Birokrasi Pelayanan Publik Konsep, Teori, Dan Aplikasi*. Deepublish.
- Suryana, D. (Ed.). (2012). *Mengenal Teknologi: Teknologi Informasi*. CreateSpace Independent Publishing Platform.
- Ulum, M. C. (2018). *Public Service: Tinjauan Teoretis dan Isu-Isu Strategis Pelayanan Publik*. Universitas Brawijaya Press.





**IMPLEMENTATION OF E-GOVERNMENT IN PUBLIC SERVICES: A
CASE STUDY AT THE POPULATION AND CIVIL REGISTRATION
OFFICE OF BONE DISTRICT**

**IMPLEMENTASI E-GOVERNMENT DALAM PELAYANAN PUBLIK:
STUDI KASUS PADA DINAS KEPENDUDUKAN DAN CATATAN SIPIL
KABUPATEN BONE**

Ahmad Rosandi Sakir¹, Humairah Almahdali², Yusriah Amaliah³

^{1,2}Pattimura University

ahmadrosandi8@gmail.com¹

humalume@gmail.com²

³Hasanuddin University

yusriahamaliah@gmail.com³

Abstract

E-Government (Electronic Government) refers to initiatives aimed at developing the administration of government by leveraging electronic technology. This concept involves restructuring management systems and workflows within the government environment by optimizing the use of information and communication technology. E-Government is not merely about using technology to modernize governance; it is also a strategy to achieve cost efficiency and effectiveness. Moreover, its goal is to provide ease in government service facilities and grant public access to information. One of the regencies in Indonesia implementing E-Government is located in South Sulawesi, namely Bone Regency. Within the framework of E-Government implementation in Bone Regency, one of the government institutions adopting it is the Department of Population and Civil Registration of Bone Regency. The legitimacy of this system has been affirmed through Regional Regulation (Perda) No. 3 of 2017 concerning Population Administration. The E-Government program implemented in the Department of Population and Civil Registration of Bone Regency is known as the Population Administration Information System (SIAK). This research employs a qualitative approach, aiming to describe real phenomena or events. The research type applied is descriptive research using the "case study" method. The goal of this research is to provide a detailed description of the nature, character, and background of a study. Based on the research and discussion above regarding the implementation of E-Government in Public Services at the Department of Population and Civil Registration of Bone Regency, three successful elements can be concluded. The first element is support, the second is capacity, and the third is value.

Keywords: E-Government, Policy Implementation, Public Service.

Abstrak

E-Government (Electronic Government) merujuk pada inisiatif untuk mengembangkan penyelenggaraan pemerintahan dengan memanfaatkan teknologi elektronik. Konsep ini melibatkan restrukturisasi sistem manajemen dan proses kerja di lingkungan pemerintah, dengan mengoptimalkan



pemanfaatan teknologi informasi dan komunikasi. E-Government tidak hanya sekadar menggunakan teknologi untuk memodernisasi pemerintahan, tetapi juga sebagai strategi untuk mencapai efisiensi dan efektivitas biaya. Selain itu, tujuannya adalah memberikan kemudahan dalam fasilitas layanan pemerintah dan memberikan akses informasi kepada masyarakat umum. Salah satu kabupaten di Indonesia yang menerapkan e-Government, terletak di Sulawesi Selatan, yaitu Kabupaten Bone. Dalam kerangka penerapan e-Government di Kabupaten Bone, salah satu instansi pemerintah yang mengadopsinya adalah Dinas Kependudukan dan Pencacatan Sipil Kabupaten Bone. Legalitas dari sistem ini telah ditegaskan melalui Peraturan Daerah (Perda) Kabupaten Bone No. 3 Tahun 2017 yang membahas Penyelenggaraan Administrasi Kependudukan. Program e-Government yang diimplementasikan di Dinas Kependudukan dan Pencacatan Sipil Kabupaten Bone dikenal dengan sebutan SIAK (Sistem Informasi Administrasi Kependudukan). Penelitian ini menggunakan pendekatan kualitatif, yang bertujuan untuk mendeskripsikan fenomena atau peristiwa yang nyata. Jenis penelitian yang diterapkan adalah penelitian deskriptif dengan metode "studi kasus". Tujuan dari penelitian ini adalah memberikan gambaran atau deskripsi rinci tentang sifat, karakter, dan latar belakang suatu penelitian. Hasil penelitian dan pembahasan di atas mengenai implementasi E-Government dalam Pelayanan Publik pada Dinas Kependudukan dan Catatan Sipil Kabupaten Bone, terdapat tiga elemen sukses yang dapat disimpulkan. Pertama elemen support, Kedua Element Capacity, dan yang Ketiga Element Value.

Kata Kunci: E-Government, Implementasi Kebijakan, Pelayanan Publik.

INTRODUCTION

The development of information and communication technology (ICT) offers significant prospects in terms of efficiency, speed of information delivery, and global and transparent reach. With these advancements, ICT becomes a key element in the transformation of modern governance. In the context of public service, this technology opens opportunities for improving administrative efficiency, accelerating information delivery to the public, and expanding the reach of services globally. Governments adopting information and communication technology can leverage digital platforms to provide faster and more responsive services to the public.

The application of information and communication technology in the government sector is not merely an administrative tool but also a key to transparency and accountability. These advancements aim to give the public better access to monitor and oversee government performance. Thus, an open and transparent government can strengthen the relationship between the government and the community, increase citizen participation in decision-making processes, and provide a stronger foundation for building trust and legitimacy in governance.

Implementation is the phase of execution carried out according to a well-planned and detailed plan. The implementation process usually occurs after planning has reached an adequate level of maturity. As stated by Juliarso (2019), implementation is defined as an activity, action, or system with a specific mechanism. In this context, implementation can be considered a series of activities involving careful planning to effectively and efficiently achieve the set goals. In other words, implementation is a critical phase in a project or activity that requires attention and good coordination to ensure the successful achievement of those goals.

According to Kapioru, as described by Kusuma et al. (2021), the factors influencing implementation performance include environmental conditions, inter-organizational relationships, resources, and the character of the implementers. Environmental conditions, encompassing political, social, and economic aspects, can significantly impact the implementation process. Inter-organizational relationships are crucial, as cooperation between various organizations can shape successful implementation dynamics. Resource factors, such as funding, personnel, and technology, also affect the



smoothness and efficiency of implementation. Lastly, the character of the implementers, including their traits, skills, and commitment, plays a role in determining the quality and outcomes of implementation. Therefore, understanding and addressing these factors is key to designing and executing a successful implementation.

E-government refers to initiatives to develop government operations by utilizing electronic technology. This concept involves restructuring management systems and work processes within the government and optimizing the use of information and communication technology. E-government is not just about using technology to modernize governance but also as a strategy to achieve cost efficiency and effectiveness. Additionally, its goal is to facilitate government services and provide access to information to the general public. The concept of e-government aims to make the government more accountable to the public, create transparency, and increase public involvement in decision-making processes.

The implementation of e-government encompasses various aspects, such as digital platform development, online service provision, and information system integration. This not only facilitates public access to government information and services but also enhances administrative efficiency. With e-government, the government can be more responsive to the needs of the public, minimize bureaucracy, and accelerate decision-making. Therefore, e-government is not just a modernization tool but also an integral strategy for creating a more efficient, transparent, and service-oriented government.

Holmes, as described by Pertiwi et al. (2021), defines e-government as a method applied by the government by utilizing the latest technology to provide services to the public more easily. This approach aims to improve service quality and ensure that the government can deliver services more efficiently. E-government is designed to provide the public with easy access to information while offering convenience to the government in delivering its services. Another goal of e-government is to provide opportunities for the public to participate in the democratic process. The use of e-government refers to the utilization of information technology by the government, which has the potential to change the dynamics of relationships between citizens, businesses, and other government units. The principle of e-government involves the use of information and communication technology by the government to provide intensive services to the public through web platforms or applications that facilitate public access while reducing costs in the governance process.

The goal of e-government is to facilitate public access to public services, make government information sources more accessible, ensure that service quality can be enjoyed by all citizens, and handle public issues and complaints more effectively. In this context, public service encompasses a series of activities aimed at meeting service needs in accordance with the law, including goods, services, and administrative services for every citizen and institution as public service providers.

According to Samparan, as cited by Doramia Lumbanraja (2020), service is defined as a series of activities that occur in direct interaction between individuals or through physical interaction, aiming to provide satisfaction to customers. Public service, in this context, is described as the process of providing services to individuals who have needs or interests in a related institution or organization based on certain procedures and rules.

Public service becomes a system built within the government with the aim of meeting public interest elements. This includes providing services in the form of goods, services, or administrative responses to public needs. Good and professional service quality, whether in the form of services, goods, or administrative responses, positively impacts public satisfaction. A direct public assessment of the performance of the services provided becomes an indicator of satisfaction, which is a measure of the success of government administration. (Yunas, 2020).



Effective and efficient services aim primarily to meet the public's need for accurate information, presented in various forms to be easily accessible. In this context, the concept of e-government has become an integral part of governance, including in Indonesia. E-government brings innovation to public service delivery by utilizing information and communication technology. The implementation of e-government allows the government to provide faster, more transparent, and easily accessible services to the public. Through digital platforms, information can be delivered more effectively, while administrative processes can be managed more efficiently. E-government is not merely a technological advancement but also a strategy to improve the quality of public services and meet the increasingly diverse demands of the public. (Tasyah et al., 2021).

Presidential Instruction No. 3 of 2003 marks the development of e-government in Indonesia, designed to ensure the integration of electronic information management and processing systems to develop a transparent public service system. This regulation implements six main strategies related to the development of e-government. First, the strategy focuses on building a reliable, trustworthy, and widely accessible service system. Second, it involves the holistic organization of management systems and work processes in central and regional governments. Third, the strategy emphasizes optimizing the use of information technology. Fourth, it focuses on developing contributions from the business sector and the telecommunications and information technology industries. Fifth, it prioritizes human resource development in the government sector and enhances digital literacy among the public. Finally, the sixth strategy includes regular development following realistic and measurable stages, as explained by Shafira and Kurniasiwi (2021).

One of the regencies in Indonesia that implements e-government is Bone Regency in South Sulawesi. In the framework of e-government implementation in Bone Regency, one of the government agencies adopting it is the Department of Population and Civil Registration of Bone Regency. The legality of this system is reinforced through Regional Regulation (Perda) of Bone Regency No. 3 of 2017, which discusses the implementation of population administration. The e-government program implemented in the Department of Population and Civil Registration of Bone Regency is known as SIAK (Population Administration Information System). Further information about this service can be accessed through the official Capil Bone website or the following webpage: <https://capil.bone.go.id/>.

SIAK is a realization of e-government implementation, a web-based information system designed according to specific procedures and standards. Its goal is to streamline the administration system in the population sector, with the hope of achieving administrative order and providing support to officials in delivering population services (Wirawan, 2020).

In the implementation of online public services, there are still some shortcomings that need to be addressed. One major issue is the lack of public knowledge about accessing the website of the Department of Population and Civil Registration of Bone Regency because the agency's staff have not conducted adequate socialization with the public. The low level of technological knowledge becomes a barrier, making the public less aware of the benefits of online services and transactions. Implementation is the step or action taken according to a well-planned and detailed plan. Usually, implementation occurs after planning has reached a level of perfection. According to Nurdin Usman, as explained by Ayunda et al. (2021), implementation is an activity, action, or system with a specific mechanism. To achieve the goals of an activity, implementation requires good planning. There are three main aspects to implementation: planning, execution, and evaluation (Taufik et al., 2022).

Holmes, as described by Sakir and Pattimura (2022), defines e-government as a method applied by the government using new technology to improve the quality of services to the public and provide ease in obtaining information. The goal is to facilitate information access for the public and make the government more efficient in delivering services, with the hope of improving service quality and



providing participation opportunities in the democratic process. E-government involves the use of information and communication technology by the government to provide intensive services to the public through the use of websites or applications. This approach aims to make it easier for the public and reduce costs in the governance process.

Public service can be defined as the process of providing services to individuals who have needs or interests in a related institution or organization based on established procedures and rules (AR Sakir, 2021). According to Kotler, as quoted by Lestari et al. (2019), public service is essential for the public to meet their various needs. Essentially, the public requires routine services to support their daily activities.

There are several types of public services that can be classified based on the nature and characteristics of activities as well as the results or products of the service. These types include: a) Administrative services, which cover activities such as recording, decision-making, research, documentation, and other administrative tasks. The end result of this service is documents, such as certificates, recommendations, and others. b) Goods services, which involve the provision of goods and their physical management, are delivered directly to consumers. Examples of this activity include electricity, telephone, and clean water services. c) Services, which involve the provision of facilities and supporting infrastructure within a specified timeframe. Examples of these services include postal services, banking services, and similar activities (Pradana, 2022).

Factors that play a role in optimizing public services include several elements, such as leadership, organizational culture, institutional factors, work procedures (standard operating procedures), service standards, public complaint management, control and evaluation, facilities and infrastructure, the use of information technology, and human resource management. Public services are directed solely to meet the needs of the public as service recipients. The success of good public service implementation can be measured by the level of public satisfaction. Therefore, an important aspect of achieving good and quality public services is the competence or capability of the apparatus, supported by a high level of intellectualization and positive behavior.

METHODS

This research uses a qualitative approach, aiming to describe real phenomena or events. The type of research applied is descriptive research with a "case study" method. The purpose of this study is to provide a detailed description or depiction of the nature, character, and background of the research. Furthermore, the research results will be linked to general aspects, providing an accurate explanation based on the issues studied, specifically how the implementation of e-government in public services at the Department of Population and Civil Registration of Bone Regency is carried out.

The informants in this research were selected using purposive sampling, where the informants were deliberately chosen by the researcher based on criteria deemed suitable for interviews. The selected informants are expected to have sufficient knowledge and understanding related to the information and facts needed to obtain relevant data and information. The number of informants in this study consists of 5 people, including the Head of the Department of Population and Civil Registration, the Secretary of the Department of Population and Civil Registration, the Head of the Population Registration Service Division, and two community members.

RESULTS AND DISCUSSION

Results

Bone Regency is located on the eastern coast of South Sulawesi Province, approximately 174 km from Makassar City. The area of Bone Regency is around 4,559 km², covering about 9.78 percent of



the total area of South Sulawesi Province. The capital of Bone Regency is Watampone, and the region is divided into 27 districts with 372 villages (Bone.go.id, 2022). The boundaries of Bone Regency are determined by its geographical conditions. To the north, Bone Regency borders Wajo and Soppeng Regencies. To the east, it borders the Gulf of Bone, while to the south, it borders Sinjai and Gowa Regencies. Meanwhile, to the west, Bone Regency borders Barru, Pangkep, and Maros Regencies.

The Department of Population and Civil Registration of Bone Regency plays a central role in the management of population and civil registration in the area. The existence of this department not only refers to administrative aspects but is also closely related to the identity and population status of the community. Its establishment is clearly regulated through Bone Regent Regulation Number 72 of 2016. This regulation outlines the organizational structure, duties, functions, and working procedures of the Department of Population and Civil Registration, providing a strong legal foundation for operations and service delivery in the field of population. As a government agency focused on population and civil registration, the Department of Population and Civil Registration of Bone Regency has significant responsibilities related to population data, recording civil events, and serving the community. The interests of this agency extend beyond administrative aspects, also involving the rights and obligations of the community in daily life. Therefore, a deep understanding of the regulations and work procedures stipulated in the Bone Regent Regulation is essential for the effective execution of the functions and duties of the Department of Population and Civil Registration.

At the operational level, the Department of Population and Civil Registration of Bone Regency has a strategic role in supporting the continuity of public services. With clear regulatory foundations, this department is expected to provide effective, efficient, and responsive population and civil registration services to meet the needs of the community. This includes the recording of births, deaths, marriages, and various other administrative aspects of the population. Thus, the Department of Population and Civil Registration of Bone Regency becomes a key element in maintaining administrative order and providing positive contributions to the lives of the community in the region.

E-government is a government initiative in developing the implementation of electronic or online-based public services, aiming to improve the effectiveness and efficiency of service quality. The optimization of information and communication technology in the implementation of e-government can provide significant benefits, as seen in the improvements in work processes and the organization of managerial systems, as well as enhancements in the working environment. In implementing e-government in the Department of Population and Civil Registration of Bone Regency, several aspects need to be considered to ensure successful implementation and positive changes in public services. Therefore, there are three key elements of success that must be considered in the implementation of e-government:

1. Element of Support

Ensuring that there is adequate and reliable technology infrastructure to support the digital systems and applications needed for e-government services.

2. Element of Capacity

Training and developing the skills of employees to effectively use and manage new technologies and digital platforms.

3. Element of Value

Establishing clear regulations and policies that support and guide the implementation of e-government, ensuring legal and operational compliance.

By focusing on these elements, the Department of Population and Civil Registration of Bone Regency can enhance the quality of its services, making them more accessible and efficient for the community.



Element of Support

The desire or determination of the government or public officials to implement E-Government is a crucial element requiring careful attention. The success of E-Government implementation depends not only on the sophistication of the technology but also on the genuine intention to improve public services. Motivation driven by sincere desire provides a strong foundation for positive changes in governance.

Interviews with AS, the secretary of the Department of Population and Civil Registration of Bone Regency, revealed that the desire to implement E-Government emerged in late 2019, with active implementation beginning in 2020. This indicates that the continuity and seriousness in implementing E-Government have become a long-term commitment. The implementation of E-Government has continued to develop over time, with the Covid-19 pandemic acting as a strong catalyst to accelerate and optimize the use of technology to improve the quality of public services. Thus, the successful implementation of online services, particularly in the issuance of family cards, can be seen as a result of sincere desire and growing commitment from the beginning. The Bone Regency Government has shown a positive response to changing times and utilizes technology as a tool to enhance the efficiency and quality of public services, especially amidst the challenges of the global pandemic.

The implementation of E-Government involves adherence to specific regulations designed to ensure the smooth functioning of systems in government agencies. This compliance is crucial so that every stage of implementation can proceed according to the established rules. To achieve this compliance, a good understanding of the relevant regulations and procedures by the employees is essential. HI, the Head of the Population Registration Service Division in Bone Regency, stated that online service requests from customers or applicants are received via WhatsApp or email. The subsequent process involves data processing through the service counter, with the final results handed back to the online service staff. A collection receipt is then created and sent back to the applicant via email or WhatsApp.

Thus, E-Government implementation relies not only on technology but also closely ties to understanding and adhering to applicable regulations. An effective system requires good coordination between online and offline processes, as well as accurate and secure data handling. By conducting all stages in accordance with the rules, E-Government implementation can provide more efficient and effective services to the public.

The steps taken by the Department of Population and Civil Registration of Bone Regency in implementing online services (E-Government) comply with public service standards and Ministry of Home Affairs Regulation (Permendagri) Number 104 of 2019 on Documentation of Population Administration. A good understanding and application of the applicable regulations were evident from the interview with AS, the department secretary. The process of receiving online service requests from customers or applicants involves the use of WhatsApp or email, with the received data then processed through the service counter. Upon completion, the results are handed back to the online service staff, and a collection receipt is created and sent via email or WhatsApp to the applicant.

The implementation of E-Government at the Department of Population and Civil Registration of Bone Regency reflects compliance with applicable regulations, including Permendagri Number 104 of 2019. The staff at this institution have understood and implemented the regulations well, particularly in the context of creating population documents such as Family Cards, Identity Cards, Birth Certificates, and other documents. Thus, the implementation of E-Government at the Department of Population and Civil Registration of Bone Regency has aligned with the existing regulatory framework, supporting transparency and improving the quality of services to the public.

The online service process at the Department of Population and Civil Registration of Bone Regency has proven effective in producing documents in electronic file format. Based on the interview with T,



an Online Service Operator involved in the creation of Family Cards, online services allow the public to access population documents without having to visit the office in person. These documents are produced in electronic file format, making it easier for the public to store and use their population information. Although this process offers significant convenience, it is noted that for collecting Identity Cards (KTP), an in-person visit to the Department of Population and Civil Registration is still required. However, for documents such as Family Cards and Birth Certificates, the public has the option to print them themselves. This reflects the local government's efforts to provide more efficient services and enhance accessibility for the public through the application of information technology in population administration.

Element of Capacity

Resources are a crucial element in the context of implementing online services (e-government), playing an important role in the success and sustainability of implementation. One of the main components of resources is human resources, where the success of technology and e-government system implementation heavily relies on the understanding, skills, and commitment of the involved employees. Well-trained human resources can optimize the use of information technology in delivering public services, reduce obstacles, and improve the quality of services provided to the community.

Apart from human resources, financial factors are also key elements. Adequate and efficient allocation of funds is fundamental to developing the necessary technology infrastructure. Sufficient finances support the procurement of hardware and software, as well as the maintenance and overall enhancement of the e-government system. Lastly, infrastructure is the third component, encompassing communication networks, servers, and other hardware. Reliable and dependable infrastructure greatly determines the performance and availability of e-government services. Therefore, these three resource components need to be well-managed and holistically integrated so that the implementation of e-government can have a significant impact on the delivery of public services.

The success of online services (e-government) at the Department of Population and Civil Registration of Bone Regency can be seen in the availability of qualified and competent human resources. Based on an interview with HI, the Head of the Population Registration Service Division, it was confirmed that all employees acting as online service operators have undergone training and hold SIAK (Population Administration Information System) operator certificates. This indicates that the human resources in the department are well-trained and competent, creating a strong foundation for effectively running e-government services.

Meanwhile, financial resources are a crucial element in the implementation of e-government. According to AS, the Secretary of the Department of Population and Civil Registration of Bone Regency, there has been a decrease in available funds or budget for e-government services. In the previous year, there was an allocation from the Special Allocation Fund (DAK) and the Regional Revenue and Expenditure Budget (APBD), but in the current year, DAK is no longer a funding source. This change creates financial challenges that need to be addressed to ensure optimal e-government implementation. Therefore, wise financial management and efficient budget allocation are key to maintaining the sustainability of online services.

Overall, the success of e-government implementation at the Department of Population and Civil Registration of Bone Regency is supported by the availability of competent human resources and wise handling of financial resources. Through an interview with HI, the Head of the Population Registration Service Division, it was revealed that employees acting as online service operators have been trained and hold SIAK operator certificates, indicating that human resources in this field meet the required competencies. Efforts to maintain the quality of human resources and manage financial resources



efficiently must be sustained. This is key to ensuring the smooth operation of online services, particularly in the issuance of family cards, identity cards, birth certificates, and other population documents.

By maintaining the quality of human resources and good financial management, the Department of Population and Civil Registration of Bone Regency can ensure that the implementation of e-government continues efficiently and meets public expectations for quality services. Infrastructure is an important element in the implementation of e-government services, and its availability at the Department of Population and Civil Registration of Bone Regency is acknowledged as key to the success of online services. According to HI, the Head of the Population Registration Service Division, the existing infrastructure is considered adequate. However, he emphasized that annual improvements or additions to equipment are necessary because these tools experience wear and require maintenance. In this context, it can be concluded that the facilities and infrastructure at the Department of Population and Civil Registration of Bone Regency are sufficient to support e-government services. However, it should be noted that maintaining and updating equipment that is no longer fit for use should be a priority, despite current budget constraints for facilitating this maintenance.

In managing infrastructure for e-government, it is important for agencies like the Department of Population and Civil Registration of Bone Regency to plan maintenance and upgrades carefully. This planning includes regular evaluations and updates to the devices and systems used. By performing timely maintenance and necessary repairs, the agency can ensure that the infrastructure used for online services continues to operate optimally, thus providing efficient and high-quality services to the public. Besides infrastructure maintenance, efficient and strategic budget management is also a determining factor in successfully maintaining and enhancing e-government infrastructure. An interview with AS, the Secretary of the Department of Population and Civil Registration of Bone Regency, revealed that the budget used for e-government services comes from the Regional Revenue and Expenditure Budget (APBD). Efficient and well-planned management is crucial so that available funds can be used for repairs, updates, and infrastructure development as needed. Thus, the agency can ensure the smooth operation of e-government in delivering population administration services to the public.

Element of Value

The value element plays a central role in determining the success of a policy or program. In this context, value refers to the extent of the benefits that can be generated through a policy or action. The importance of the value element lies in its ability to provide direction and focus in designing and implementing policies that can have a significant positive impact. In determining the value of a policy, a comprehensive evaluation of the expected benefits must be conducted. This includes analyzing the positive impact on the community or organization targeted by the policy. Involving stakeholders and understanding their needs and expectations can help in detailing the values that need to be considered. When these values are well integrated into the policy, more holistic and targeted solutions can be produced.

The importance of the value element is also reflected in the formation of public policies, especially when the policy aims to improve community welfare or achieve specific goals. By focusing on values that provide maximum benefits, policies can be designed more effectively, thereby expected to make a significant positive contribution.

The implementation of e-government at the Department of Population and Civil Registration of Bone Regency brings tangible benefits, particularly in addressing queue congestion. According to HI, Head of the Population Registration Service Division, the implementation of this online service has successfully reduced queue congestion at Capil. Before this system, queues at the Department of



Population and Civil Registration of Bone Regency were usually long, leading to delays and discomfort for the community. With the online service, the registration and document collection processes can proceed more efficiently and in an orderly manner.

Another benefit is the smooth service process during the COVID-19 pandemic. With the online system, people can avoid crowds and risky physical contact. HI stated that online services have been active since 2020 and intensified when the pandemic struck. Thus, e-government at the Department of Population and Civil Registration of Bone Regency not only provides solutions to long queues but also serves as an effective instrument in maintaining health protocols during the pandemic. Overall, the benefits of e-government implementation are manifested in the reduction of queue congestion and optimal adaptation to the pandemic situation, ensuring that public services continue to run smoothly, efficiently, and safely.

The implementation of e-government at the Department of Population and Civil Registration of Bone Regency not only benefits the department but also creates positive impacts for the community. Based on an interview with a resident, SM, online services have brought significant convenience. SM stated that he often uses the call center service via WhatsApp for various needs, especially when he urgently needs information or wants to check data. The existence of this service is very helpful, particularly in urgent situations, such as when needing to print a vaccination card. SM feels assisted because he can contact the Department of Population and Civil Registration without having to come in person, saving time and effort.

Another benefit emphasized by the resident through this interview is the ease of managing documents. SM revealed that after the implementation of e-government, the process of managing documents that need correction has become easier and without significant difficulties. This online service provides an efficient alternative, allowing the community to address administrative issues without needing to attend the office directly. Additionally, the simplicity of the requirements for document submission is also a positive value. Online services not only provide convenient access through the website and call center but also align the document requirements with offline services, so the community does not feel burdened or have difficulty fulfilling the necessary documents. Overall, the benefits obtained by the community since the implementation of e-government at the Department of Population and Civil Registration of Bone Regency are very significant. Online services not only provide easy access but also speed up and simplify the document management process, provide effective solutions for urgent needs, and reduce the need for physical presence at the office, ultimately offering a better service experience to the community.

Discussion

Element of Support

The research results show that a sincere desire to improve public services through e-government has become a strong foundation for positive changes in governance in Bone Regency. The importance of genuine desire and motivation aligns with motivation theories in public administration, where the drive stemming from sincere intentions can provide a solid foundation for change and innovation. This theory emphasizes that the success of e-government implementation depends not only on technological aspects but also on a long-term commitment to improving the quality of public services.

Additionally, the research results also note that the desire to implement e-government in Bone Regency emerged at the end of 2019, and its implementation began in 2020. This fact illustrates the local government's long-term commitment to change. This is consistent with organizational change theory, which posits that successful change requires commitment and sustainability from the relevant parties. The COVID-19 pandemic has also been identified as a strong driver to accelerate and optimize



the use of technology to improve the quality of public services. Theories of technological adaptation and innovation support this concept, where technological changes can be accelerated by pressure or urgent needs, such as in the case of the pandemic, to enhance service efficiency and effectiveness.

In the context of e-government implementation, the importance of compliance with specific regulations is also highlighted. Administrative compliance theory views adherence to rules and procedures as key to the successful implementation of public policy. The research results indicate that compliance with regulations, such as Permendagri Number 104 of 2019, is a crucial aspect of effectively running e-government. The implementation process of e-government at the Department of Population and Civil Registration of Bone Regency shows that good coordination between online and offline processes, understanding of rules, and accurate and secure data handling are very important. This aligns with public management and organizational effectiveness theories, where coordination and understanding of rules are key factors in achieving public service efficiency and effectiveness. Moreover, the research results note that the implementation of e-government in Bone Regency complies with the applicable regulatory framework, supports transparency, and improves the quality of services to the public. Policy implementation and public administration theories highlight the importance of regulatory compliance as an element ensuring optimal performance and outcomes.

Regarding online-based services, the ability to produce electronic file documents reflects the efficiency and accessibility gained through the application of information technology. Although there are notes that some documents still require in-person visits, these steps reflect the local government's efforts to provide more efficient services and enhance accessibility for the public.

Element of Capacity

Human resource management theory is related to the success of an organization, which depends on the understanding, skills, and commitment of employees, as reflected in the implementation of e-government at the Department of Population and Civil Registration of Bone Regency. Financial factors, particularly changes in fund allocation, create an urgency for wise financial management to keep e-government services optimal. Adequate infrastructure is recognized as key to the success of online-based services, but the need for regular maintenance and repairs emphasizes the importance of careful infrastructure management.

There is also an interconnection between human resources, financial, and infrastructure elements that must be holistically integrated in accordance with organizational management and information systems theories. Efficient budget management, as stated by the Department Secretary, is crucial for maintaining smooth operations and developing e-government infrastructure. By maintaining the quality of human resources, wise financial management, and timely infrastructure planning, the Department of Population and Civil Registration of Bone Regency can ensure the sustainability and efficiency of e-government implementation, meeting public expectations for quality population administration services.

Element of Value

The element of value, or the extent of the benefits that can be generated through a policy or action, becomes the main focus in designing and implementing policies. This concept can be associated with public policy management and policy evaluation theories, where the importance of values that can provide maximum benefits serves as a foundation for effective policy design. In the context of e-government implementation, tangible benefits are seen in addressing queue congestion at the Department of Population and Civil Registration of Bone Regency. The research results reflect the concept of benefits in public policy theory, where the implementation of online services successfully



increases the efficiency and orderliness of the registration and document collection processes, reducing inconvenience for the public.

The importance of the value element is also evident in the optimal adaptation to the COVID-19 pandemic situation. By focusing on values that provide maximum benefits, the department was able to maintain health protocols through e-government. This reflects the connection between public policy theory and policy adaptation to situational changes. The benefits of e-government implementation are not only limited to the department but also create positive impacts for the community. The value element is reflected in the ease of access and efficiency of the document management process, aligning with public service management theory. Interviews with residents provide an overview of how online services bring significant convenience to using call center services, managing documents, and simplifying requirements.

Overall, the research results illustrate that the implementation of e-government at the Department of Population and Civil Registration of Bone Regency has successfully optimized values that provide maximum benefits, in line with public policy management and public service management theories. By understanding the needs and expectations of the public and focusing on values that can provide positive impacts, e-government implementation not only improves the department's internal efficiency but also offers effective solutions and convenience to the community.

CONCLUSION

Kesimpulan

Based on the research results and the discussion above regarding the implementation of e-government in public services at the Department of Population and Civil Registration of Bone Regency, three key success elements can be concluded:

1. The support element is the main key to the success of e-government implementation. The desire and determination of the government or public officials are the most important elements to be considered in running e-government. This aligns with public service standards and the Ministry of Home Affairs Regulation (PERMENDAGRI) Number 104 of 2019 concerning the documentation of population administration. This sincere determination aims to reduce costs, increase transparency and accountability, and achieve effective and efficient public service improvements.
2. The capacity element is a crucial factor in the success of e-government implementation. Resources in this context consist of three main components, namely human resources, finances, and infrastructure. These three elements play a significant role in determining the smoothness and success of online services. Human resources involved in providing online services must be competent individuals who meet the established standards. Financial resources are an inseparable element, where the funds used come from the Regional Revenue and Expenditure Budget (APBD). The success of online service delivery is highly related to the availability of adequate funds. Meanwhile, infrastructure resources also have a significant impact. Infrastructure components, such as computers, need to be maintained or updated annually to ensure the smooth operation and efficiency of the online service system. By ensuring the adequacy of resources in these three components, it is hoped that the implementation of e-government can run optimally.
3. The value element is very important in the context of e-government implementation. This element encompasses the extent to which the government agency as the implementer and the community as the service recipients experience the benefits of e-government implementation. In the context of the Department of Population and Civil Registration of Bone Regency, the



benefits include reducing queue congestion and restoring the service process to normal as before the COVID-19 pandemic. The benefits felt by the community are also very positive. The community does not need to come directly to the office to queue, and accessibility through the website and call center is very easy. The requirements for document submission in online services are also arranged in a manner similar to offline services, providing convenience and clarity in the service process. Thus, the value obtained from both the implementing agency and the community becomes an indicator of the success of e-government implementation at the Department of Population and Civil Registration of Bone Regency.

Recommendations

This research provides an in-depth understanding of the implementation of e-government in public services at the Department of Population and Civil Registration of Bone Regency. For future research, several recommendations can be explored to expand insights and deepen the understanding of the use of information technology in the context of public services.

1. Research can focus on evaluating the impact of e-government on the efficiency and effectiveness of public services. Further analysis can be conducted to measure quantitatively and qualitatively to what extent E-Government implementation has improved organizational performance, reduced operational costs, and provided direct benefits to the community.
2. Research can explore the community's perspective on their acceptance and satisfaction with online-based services. Involving respondents from various segments of society will provide a more holistic picture of how well e-government meets their expectations and needs, as well as potential improvements that can be identified.
3. Research can focus on the aspects of data security and privacy in the implementation of e-government. Further investigation into the security measures applied in managing the personal data of the community will be a valuable contribution to ensuring that information security remains a top priority in the digital era.
4. Research can involve comparisons between regencies that have implemented e-government and those that have not. This can provide further understanding of the different impacts and challenges that may be faced by regencies that have not fully adopted this technology.

Through subsequent research that delves deeper into these aspects, it is hoped to provide more comprehensive and applicable insights for the development of technology-based public services in the future.

REFERENCES

- AR Sakir, A. R. (2021). Budaya Birokrasi: Kinerja Pegawai Samsat Maros dalam Pelayanan Pembayaran Pajak Kendaraan bermotor. 7, 25–35. <https://journal.ildikti9.id/sosiosains/article/view/573/402>
- Ayunda, R., Nertivia, N., Prastio, L. A., & Vila, O. (2021). Kebijakan Online Single Submission sebagai E-Government dalam Mewujudkan Good Governance di Indonesia. *Journal of Judicial Review*, 23(1), 71. <https://doi.org/10.37253/jjr.v23i1.4359>
- Dorania Lumbanraja, A. (2020). Urgensi Transformasi Pelayanan Publik melalui E-Government Pada New Normal dan Reformasi Regulasi Birokrasi. *Administrative Law and Governance Journal*, 3(2), 220–231. <https://doi.org/10.14710/alj.v3i2.220-231>



- Juliarso, A. (2019). Analisis Implementasi E-Government Dalam Meningkatkan Kinerja Pelayanan Publik Pada Pemerintah Daerah Kabupaten Ciamis. *Kebijakan : Jurnal Ilmu Administrasi*, 10(1), 10. <https://doi.org/10.23969/kebijakan.v10i1.1417>
- Kusuma, A. A., Wasistiono, S., & Pitono, A. (2021). Penerapan E-Government Dalam Meningkatkan Kualitas Pelayanan Publik di Dinas Penanaman Modal dan Pelayanan Terpadu Satu Pintu Kota Bandung Provinsi Jawa Barat “Implementation Of Egovernment In Improving The Quality Of Public Service In Department Of Investment Service And Integrated Service In Bandung City, West Java Province.” *Visioner*, 13(2), 145–157.
- Lestari, Y. D., Nugraha, J. T., & Fauziah, N. M. (2019). Pengembangan E-Government melalui Layanan Aspirasi Masyarakat di Dinas Komunikasi dan Informatika Kabupaten Magelang. *Jurnal Ilmu Administrasi: Media Pengembangan Ilmu Dan Praktek Administrasi*, 16(2), 163–178. <https://doi.org/10.31113/jia.v16i2.230>
- Pertiwi, A., Dema, H., Mustanir, A., & Anugrah, E. (2021). PENERAPAN E-GOVERNMENT DALAM MEWUJUDKAN TRANSPARANSI TATA KELOLA PEMERINTAHAN DESA (Studi pada Pemerintahan Desa Bulu Timoreng). *PRAJA: Jurnal Ilmiah Pemerintahan*, 9(3), 130–139. <https://doi.org/10.55678/prj.v9i3.508>
- Pradana, F. H. (2022). Penerapan E-Government dalam Pelayanan Informasi Publik di Diskominfo Kabupaten Bulungan Provinsi Kalimantan Utara. *Repository IPDN*, 1–17. <https://bit.ly/3tRIUNu>
- Sakir, A. R., & Pattimura, U. (2022). TENGAH EMPOWERMENT OF THE POOR BY THE SOSIAL WELFARE OFFICE IN LETWARU VILLAGE , MASOHI DISTRICT , CENTRAL MALUKU Salah satu kewajiban Pemerintah yakni melakukakn penanggulangan kemiskinan yang harus dilakukan sebagai pemenuhan atau wujud dari amanat raky. 3(1), 1–10.
- Shafira, A., & Kurniasiwati, A. (2021). Implementasi E-Government Dalam Upaya Peningkatan Pelayanan Berbasis Online Di Kabupaten Kulon Progo. *Jurnal Caraka Prabu*, 5(1), 52–68. <https://doi.org/10.36859/jcp.v5i1.457>
- Tasyah, A., Lestari, P. A., Syofira, A., Rahmayani, C. A., Cahyani, R. D., & Tresiana, N. (2021). Inovasi Pelayanan Publik Berbasis Digital (E-Government) di Era Pandemi Covid-19. *Jurnal Ilmu Administrasi: Media Pengembangan Ilmu Dan Praktek Administrasi*, 18(2), 212–224. <https://doi.org/10.31113/jia.v18i2.808>
- Taufik, T. H., Sarah, S. W., & Yusuf, Y. A. (2022). Analisis Strategi Keberhasilan E-Government di Kabupaten Bojonegoro. *Journal of Governance Innovation*, 4(1), 14–26. <https://doi.org/10.36636/jogiv.v4i1.1116>
- Wirawan, V. (2020). Penerapan E-Government dalam Menyongsong Era Revolusi Industri 4.0 Kontemporer di Indonesia. *Jurnal Penegakan Hukum Dan Keadilan*, 1(1), 1–16. <https://doi.org/10.18196/jphk.1101>
- Yunas, N. S. (2020). Implementasi e-Government dalam Meminimalisasi Praktik Rent Seeking Behaviour pada Birokrasi Pemerintah Kota Surabaya. *Matra Pembaruan*, 4(1), 13–23. <https://doi.org/10.21787/mp.4.1.2020.13-23>





WASTE MANAGEMENT IN SAUMLAKI CITY, TANIMBAR ISLAND REGENCY

MANAJEMEN SAMPAH DI KOTA SAUMLAKI KABUPATEN KEPULAUAN TANIMBAR

Dewi Hijriyani¹, Iriane Sosiawaty Ponto², La Madjid³

^{1,2,3}Pattimura University

dewihijriyani@gmail.com¹

iriane.ponto20@gmail.com²

lamadjid75@gmail.com³

Abstract

This research focuses on the practices of waste collection and disposal. Utilizing a qualitative methodology approach, the study employs interviews, observations, documentation, and literature reviews as data collection techniques in a "natural" environment. The data analysis process involves steps such as simultaneous data collection, data reduction, data visualization, and drawing conclusions/verification. The study's findings highlight that despite Saumlaki City having effective waste management, the community's awareness of cleanliness remains low. Waste managers face challenges in adhering to schedules and overseeing the entire process, from collection to disposal. The existing infrastructure is deemed inadequate, especially concerning facilities and infrastructure for the collection, transportation, and disposal of waste at the final disposal site, resulting in the inefficiency of waste management. By combining these findings with previous research results, conclusions can be drawn regarding the complexity of challenges faced in improving waste management in Saumlaki City, with specific recommendations to enhance public awareness and improve waste management infrastructure.

Keywords: Waste Management, Waste Manager Performance, Saumlaki City.

Abstrak

Penelitian ini memfokuskan pada praktik pengumpulan dan pembuangan sampah. Dengan menggunakan pendekatan metodologi kualitatif, penelitian ini memanfaatkan wawancara, observasi, dokumentasi, dan tinjauan pustaka sebagai teknik pengumpulan data di lingkungan "alami." Proses analisis data melibatkan langkah-langkah seperti pengumpulan data simultan, reduksi data, visualisasi data, dan penarikan kesimpulan/verifikasi. Temuan studi menyoroti bahwa meskipun Kota Saumlaki memiliki pengelolaan sampah yang efektif, tingkat kepedulian masyarakat terhadap kebersihan masih rendah, dan pengelola sampah menghadapi kendala dalam mematuhi jadwal dan mengawasi seluruh proses, mulai dari pengumpulan hingga pembuangan sampah. Infrastruktur yang ada dinilai kurang memadai, terutama dalam hal sarana dan prasarana untuk pengumpulan, pengangkutan, dan pembuangan sampah di tempat pembuangan akhir, yang mengakibatkan tidak efisiennya manajemen sampah. Dengan menggabungkan temuan ini dengan hasil penelitian sebelumnya, kesimpulan dapat ditarik mengenai kompleksitas tantangan yang dihadapi dalam meningkatkan manajemen sampah di



Kota Saumlaki, dengan rekomendasi spesifik untuk memperbaiki tingkat kesadaran masyarakat dan meningkatkan infrastruktur pengelolaan sampah.

Kata Kunci: Manajemen Sampah, Kinerja Pengelola Sampah, Kota Saumlaki.

INTRODUCTION

This research reflects the administrative and legal framework in the Unitary State of the Republic of Indonesia, which grants autonomy to provincial, district, and city regions to manage and handle their governmental affairs in accordance with the principles of autonomy and co-administration. The existence of regional governments aims to accelerate the achievement of community welfare by considering the principles of democracy, equity, justice, and the uniqueness of a region. Local governments are given the right to establish regional regulations and other rules to implement autonomy and co-administration.

The principles underlying and guiding government regulation, according to Kasil (2003), include applicable obligations, clarity of authority, coordination principles, documentation, communication with all stakeholders, and simplicity. These principles are important in carrying out government duties to ensure proper administration.

In the context of the environment, waste management is one of the challenges faced by local governments. Waste, which is an object with no economic value produced from human activities or natural processes, can negatively impact the environment and public health if not managed properly. Environmental damage and pollution are accelerated by human activities and population growth.

This condition occurs not only in developing countries but also in developed countries with high industrialization levels. Rapid population growth in a region or country can cause various environmental problems, one of which is waste management. Waste has become a global issue that must be addressed seriously, considering its detrimental impacts not only locally but also nationally and internationally.

In the context of the Tanimbar Islands Regency, particularly in Saumlaki City, waste management issues are becoming increasingly complex. The Tanimbar Islands Regional Regulation No. 8 of 2014 on Waste Management assigns the responsibility of maintaining cleanliness to the local government, carried out by the Saumlaki City Environmental and Sanitation Office and other Regional Work Units (SKPD).

However, the implementation of the policies and strategies outlined in this regional regulation still faces several obstacles. Community-based waste management programs are minimal, possibly due to the lack of mediation resulting in agreements between related parties. Increasing community participation in waste management remains a challenge, especially in terms of awareness of cleanliness and the active role of the community in maintaining the environment.

The impact of ineffective waste management in Saumlaki City is evident from the lack of final disposal sites (TPA), resulting in waste accumulating at temporary disposal sites (TPS). The limited facilities and infrastructure provided by the local government cannot accommodate the increasing volume of waste. The lack of adequate final disposal sites leads to improper waste processing, causing negative impacts on the surrounding environment, such as unpleasant odors and contaminated water and soil.

The Saumlaki City government has attempted to address the waste issue by establishing Temporary Disposal Sites: Reduce, Reuse, and Recycle (TPS3R) to collect and process waste. However, in reality, some areas in Saumlaki City still lack TPS, resulting in waste being improperly disposed of and piling up in various corners of the city. This creates a slum and dirty impression, produces unpleasant odors, and creates wet and unhygienic areas.



To increase community participation, the local government has the authority to establish waste management policies and strategies involving norms, standards, procedures, and criteria set by the government. However, the lack of regular monitoring and evaluation of final disposal sites with open dumping systems that have been closed makes it difficult to measure the effectiveness of the implemented policies.

Considering the current developments marked by population growth and daily human activities, the amount of waste generated in Saumlaki City continues to increase. The variety of waste types and large volumes add to the complexity of waste management issues. The waste management paradigm that still relies on the old approach of collect, transport, and dispose and the lack of community-based waste management programs are real challenges.

In this context, waste management in Saumlaki City is not only the responsibility of the local government but also requires active participation from the community, business actors, and all stakeholders. Effective supervision by relevant agencies, increasing community participation, adequate monitoring of waste processing, and improving waste management infrastructure are strategic steps that need to be taken.

Given the complexity of waste management issues in Saumlaki City, this research will adopt an analytical approach to analyze the existing problems, evaluate the policies and strategies that have been implemented, and provide concrete recommendations for improving the sustainable waste management system. It is hoped that the results of this research can make a constructive contribution to the local government and all stakeholders in enhancing the effectiveness and efficiency of waste management in Saumlaki City, Tanimbar Islands Regency.

METHODS

This research adopts a qualitative approach to delve into waste management practices in Saumlaki City, Tanimbar Islands Regency. The focus of the study is on the aspects of waste collection, transportation, processing, and disposal, aiming to understand the waste management system holistically. The operational definition of the variables involves four main stages: waste collection practices, waste transportation, waste processing, and waste disposal as the final process.

The research is conducted in Saumlaki City, with a population that includes the community, waste management officers, local government, and relevant stakeholders. A purposive sample of 13 individuals was selected, consisting of 3 employees from the Saumlaki City Environmental Office, 4 waste management personnel, and 6 community members. Data collection was carried out through interviews, observations, and documentation, using primary tools such as voice recorders, cameras, and note-taking devices.

Data analysis involves data reduction, data visualization, and conclusion drawing and verification to obtain a comprehensive overview of waste management in the area.

RESULTS AND DISCUSSION

Results

The waste management system in Saumlaki City, particularly in managing the final disposal site (TPA), is currently overseen by the sanitation department and officers responsible for transporting waste from various points in Saumlaki City to the TPA. The cooperation between the sanitation department and the market head is considered a positive step that facilitates waste management in Saumlaki City. The market head has the authority to handle daily retribution payments, which is part of the effort to increase efficiency in the waste management system.

Improvements in waste management conditions in Saumlaki City can be seen from the various facilities and infrastructure that have been implemented. Under the leadership of Mr. CH. FATLOLON, SS., MM, as the head of the environmental department, there has been a significant improvement in the



waste management system. The corrective and coaching measures in Saumlaki, South Tanimbar, reflect a commitment to improving the quality of waste management in the region. Overall, the efforts to enhance the waste management system are positive steps that can have a meaningful impact on the environmental conditions and welfare of the local community. The facilities and infrastructure provided by the Saumlaki City Environmental Department can be seen in the table below:

Table 1
Facilities and Infrastructure of the Environmental Department of Saumlaki City

Waste Truck	TPST	Amrol Truck	TPA
Saumlaki City has 4 units of waste trucks	Larat City		Lorulung Village
	Adaut Village	1 unit	Amtufu Village
	Lauran Village		

Source: Environmental Department of Saumlaki City, 2023.

Referring to information obtained from the Environmental Department, there are several waste workers employed within the scope of work of the Environmental Department in Saumlaki City, Tanimbar Islands. The data is as follows:

Table 2
Employee Data

Waste Truck Workers in Saumlaki City	Street Sweeper Workers in Saumlaki City	Sediment Cleaner Workers in Saumlaki City
35 people	82 people	16 people

Source: Environmental Department of Saumlaki City, 2023.

Waste management practices in Saumlaki City

Through a series of interviews and observations, it was revealed that waste collection practices in Saumlaki City are carried out using waste collection vehicles that routinely traverse residential areas. However, findings show that not all residential areas are covered by this service, particularly in more remote residential areas. This gap highlights the challenges faced in terms of the accessibility of waste collection services in the city.

This limitation can negatively impact environmental cleanliness, especially in areas not reached by routine waste collection services. Remote residential areas tend to face obstacles in accessing waste management facilities, increasing the risk of uncontrolled waste accumulation. Additionally, this lack of coverage can contribute to potential public health issues due to the inability to manage waste effectively.

In this context, improving the coverage of waste collection services becomes an urgent need. The local government, together with relevant agencies, needs to consider strategies to ensure that all areas, including remote ones, receive adequate waste management services. Steps such as increasing the frequency of waste collection, adding more collection vehicles, or even considering alternative solutions like community-based waste management programs could be options to address the gap in the accessibility of waste collection services in Saumlaki City. These measures can contribute positively to maintaining environmental cleanliness and public health in the area.



Waste Transportation and Hauling

The process of transporting waste from collection points to processing or disposal sites is a focal aspect of this study. Findings indicate that the waste transportation fleet in Saumlaki City is limited, and the distances that the fleet must travel are a limiting factor in the efficiency of waste management. This limitation creates potential problems related to delays in the waste management process in the city.

The limited waste transportation fleet can affect the frequency of waste hauling from collection points to processing or disposal sites. The distances that the fleet must travel are a critical parameter affecting the timeliness of the waste management process. Geographic conditions and possibly inadequate infrastructure can also complicate the waste transportation process.

The impact of fleet limitations and travel distances includes the potential for waste accumulation at temporary storage sites. This accumulation can cause various problems, including an increased risk of environmental pollution and reduced air quality around temporary storage sites. Additionally, waste accumulation can create a negative perception of the city's cleanliness and impact public health.

To address these challenges, the local government should consider options to increase the capacity of the waste transportation fleet, improve transportation routes, or even reevaluate logistics management in waste management. Technology-based approaches and logistical innovations can be effective solutions to improve the efficiency of waste transportation processes, ensure smooth waste management, and prevent unwanted accumulation. With the right solutions, Saumlaki City can enhance its waste transportation system performance, create a cleaner environment, and reduce negative impacts on public health and the environment.

Waste Processing at Temporary Disposal Sites

Observations at temporary disposal sites highlight that the waste processing in Saumlaki City is still not optimal. One of the emerging issues is the lack of effectiveness in waste sorting and volume reduction. Inadequate sorting facilities are a major factor affecting overall waste processing at the local level.

Waste sorting is a critical stage in waste management aimed at separating different types of waste according to their characteristics. However, limited waste sorting infrastructure can lead to decreased efficiency in waste management. Observations also indicate a lack of adequate sorting facilities, contributing to low effectiveness in managing waste.

In addition to suboptimal sorting, waste volume reduction is also a primary concern. Volume reduction is an important step for more efficient waste management. Observations at temporary disposal sites show that the volume reduction process is not fully optimized, possibly due to technological limitations or insufficient investment in waste processing infrastructure.

The lack of waste processing infrastructure, particularly in terms of sorting facilities and volume reduction technology, is a major barrier to achieving efficient waste management in Saumlaki City. Therefore, further attention and investment from the local government are needed to enhance waste processing infrastructure to achieve more sustainable and effective waste management practices at the local level. By doing so, Saumlaki City can address waste management issues and create a cleaner and healthier environment for its community.

Waste Disposal at the Final Disposal Site

The research also reveals that the waste disposal process at the Final Disposal Site (TPA) in Saumlaki City still uses an open system, which can have negative impacts on the surrounding environment. The open system at the TPA poses a significant risk to environmental pollution by



dispersing unpleasant odors, discharging waste into the wind, and endangering the health of the local community.

The TPA's open condition also suggests a lack of adequate supervision and maintenance. Without strict oversight, the TPA becomes vulnerable to illegal or uncontrolled dumping practices. This can create potential soil and water pollution around the TPA site. Soil pollution can occur through the seepage of waste liquids containing hazardous substances into the ground, while water pollution can occur through rainwater runoff carrying waste from the TPA to local water sources.

To improve overall waste management, it is important to evaluate and enhance the waste disposal system at the TPA. Implementing a closed system or better closure technology can be a solution to reduce the negative impacts on the surrounding environment. Additionally, increased supervision and routine maintenance at the TPA are necessary to prevent practices that can harm the environment and public health.

By detailing the potential risks and negative impacts associated with waste disposal at the TPA, this research can provide a foundation for local government and related parties to design more effective policies and actions in waste management in Saumlaki City. Improving infrastructure, implementing environmentally friendly technologies, and increasing supervision can be strategic steps to create a more sustainable waste disposal system that supports environmental conservation.

Discussion

Challenges in Waste Management in Saumlaki City

The results of this research highlight several challenges that need to be addressed in waste management in Saumlaki City. One aspect that requires serious attention is the uneven coverage of waste collection services across all residential areas. Although there are waste collection vehicles that routinely traverse residential areas, it was found that not all areas are covered by this service, especially in more remote residential areas. This uneven coverage indicates that there are still challenges in the accessibility of waste management services.

The uneven coverage of waste collection services suggests that some areas in Saumlaki City may have difficulty accessing optimal waste management services. Remote residential areas or those that are difficult to reach by waste collection fleets may face the risk of waste accumulation and negative impacts on environmental cleanliness. Therefore, efforts need to be made to improve the accessibility of waste management services throughout Saumlaki City.

In addition, the research provides insights into the importance of updates in waste transportation aspects. The process of transporting waste from collection points to processing or disposal sites was identified as a focal point. It was found that the waste transportation fleet is limited, and the distances that the fleet must travel are limiting factors. These constraints can impact delays in the waste management process and contribute to waste accumulation at temporary storage sites. Therefore, improvements and developments in the waste transportation system are needed to enhance the efficiency and smoothness of the waste management process in Saumlaki City.

By recognizing these challenges, this research is expected to provide a foundation for improving the waste management system in Saumlaki City. Recommendations and solutions offered based on research findings can serve as a basis for local government and related parties to design more effective policies and actions for enhancing comprehensive waste management services. Collaborative efforts between the government, community, and private sector can also be key to achieving sustainable waste management and having a positive impact on the environment and public health.



Limitations of Waste Transport and Processing Infrastructure

The limitations of the waste transport fleet and processing infrastructure at temporary disposal sites in Saumlaki City highlight the urgent need for increased investment in this sector. Research findings indicate that the limited waste transport fleet causes constraints in the transportation process, from collection points to processing or disposal sites. Increasing the number and quality of the fleet is essential to enhancing the efficiency of local waste management.

Additionally, the waste processing infrastructure at temporary disposal sites also needs updating. Field observations indicate that waste processing is not yet optimal, particularly in terms of waste sorting and volume reduction. The lack of adequate sorting facilities can slow down the overall waste management process. Therefore, investing in modern and efficient waste sorting facilities can be a solution to improve waste management performance in Saumlaki City.

This investment can involve the private sector or partnerships between local governments and the private sector. Private sector involvement can help provide the latest technology and financial resources needed to improve waste management infrastructure. Furthermore, it is necessary to enhance the capacity of human resources involved in waste management, such as through training for waste management officers and the community, so they can actively participate in sustainable waste management practices.

In this context, cooperation between the government, private sector, and community is needed to formulate a holistic and sustainable waste management strategy. Local governments can design policies that support increased investment, while the private sector can contribute to the development of infrastructure and technology. Additionally, the community needs to be actively involved through educational campaigns and participation in community-based waste management programs.

Through these collaborative efforts, it is hoped that Saumlaki City can overcome the challenges in waste management and move towards a more efficient, sustainable system with positive impacts on the environment and public health.

The Need for Supervision and Maintenance at the Final Disposal Site

In Saumlaki City, the management of the Final Disposal Site (TPA) with an open system poses serious environmental pollution risks. Field observations show that the open system at the TPA can result in negative impacts, especially if there is no adequate supervision and maintenance. This condition requires serious attention from authorities to prevent local ecosystem damage and protect the health of the surrounding community.

Uncontrolled waste disposal at the TPA can cause soil and water pollution in its vicinity. The open area at the TPA allows hazardous chemicals and toxic waste to seep into the ground, creating contamination risks that can harm soil microorganisms and plants. Additionally, rainwater can carry toxic materials from waste piles and flow them into local water systems, causing water pollution that potentially harms aquatic life and communities using the water.

The lack of supervision and maintenance at the TPA can also lead to the accumulation of toxic gases, such as methane, produced by the decomposition of organic waste. This gas not only has the potential to cause air pollution but can also create a fire hazard if it accumulates in significant amounts. Therefore, an effective gas management system needs to be implemented to reduce emissions and fire risks that can harm the environment around the TPA.

Better TPA maintenance efforts can also include innovative waste management practices, such as the creation of water-resistant cover layers to prevent soil and water pollution. Authorities can also consider modern waste management technologies, such as incinerators or more efficient recycling methods, as alternatives to reduce the environmental impact of waste disposal.



By improving supervision, maintenance, and adopting better waste management technologies, Saumlaki City can protect the environment around the TPA and prevent potential public health risks. These measures need to be integrated into a holistic waste management plan, creating an environmentally friendly and sustainable system for the city's long-term sustainability.

Recommendations for Improving Waste Management

Based on research findings, significant improvements are needed in several aspects of waste management in Saumlaki City to achieve more sustainable and efficient practices.

Firstly, a comprehensive evaluation of the coverage of waste collection services is needed. Observations show that there are still disparities in the distribution of these services across residential areas. Therefore, steps need to be taken to ensure that all communities, including more remote areas, are covered by waste collection services. This evaluation can involve further collaboration with relevant parties and communities to understand the needs and challenges in various areas.

Secondly, expanding the infrastructure for waste transport and processing at temporary disposal sites is key to increasing the capacity and efficiency of the waste management process. A larger and more efficient waste transport fleet can help overcome the distance and limitations currently faced. Additionally, investing in better waste sorting facilities can support more effective and sustainable waste management.

Thirdly, changes in the waste disposal system at the final disposal site (TPA) are necessary. Moving towards a more controlled and environmentally friendly system will help reduce the risk of environmental pollution, particularly in the soil and water around the TPA. Implementing modern waste management practices, such as using water-resistant cover layers and effective gas management systems, can be solutions to address these issues. Additionally, involving the community in these changes can raise awareness of the positive impacts that can be achieved.

Overall, these improvement recommendations should be integrated into Saumlaki City's strategic waste management plan. Active involvement from local governments, relevant agencies, communities, and other stakeholders will be key to successfully achieving the necessary changes. By implementing these improvements, Saumlaki City can develop a sustainable, efficient, and supportive waste management system to create a clean and healthy environment for its residents.

CONCLUSION

Conclusion

This research provides an in-depth overview of the waste management system in Saumlaki City, Tanimbar Islands Regency. We can draw several relevant conclusions from the obtained findings to improve the effectiveness and sustainability of waste management in this region.

1. The qualitative approach used in this research provides a deep understanding of waste management practices. This approach enables the researcher to investigate the community's views, attitudes, and behaviors and understand the factors influencing waste management in Saumlaki City. Thus, the proposed improvement recommendations can be more targeted and aligned with local needs.
2. The distribution of waste collection services remains uneven across residential areas. We need to conduct further evaluation to guarantee that these services encompass all communities, including those in more remote areas. Enhanced cooperation with relevant parties and community participation can be keys to achieving better service accessibility.
3. The waste transport fleet's limitations and processing infrastructure at temporary disposal sites are major constraints in the waste management process. To improve waste management



efficiency and reduce potential accumulation, urgent investment is required to increase the fleet and waste sorting facilities. Strategies for meeting these needs include private sector involvement and efforts to obtain financial support from third parties.

4. The waste disposal system at the Final Disposal Site (TPA) still faces environmental pollution risks. Therefore, a shift towards a more controlled and environmentally friendly system is necessary. Implementing modern technology and involving the community in this process can enhance waste management effectiveness at the TPA.

Overall, this research makes an important contribution to understanding the waste management system in Saumlaki City. The proposed improvement recommendations are holistic, involving aspects of collection, transportation, processing, and disposal of waste. By implementing these recommendations, Saumlaki City is expected to achieve sustainable, clean, and healthy waste management goals for the well-being of its community.

Recommendations

Based on the conclusions of the research on waste management in Saumlaki City, several recommendations are necessary to improve the effectiveness and sustainability of the waste management system in this region.

1. To address the uneven coverage of waste collection services, it is recommended to conduct an in-depth evaluation of residential areas that are not yet covered. The local government needs to map areas that are still not optimally served and develop strategies to expand waste collection service coverage. This effort can involve active participation from the local community, providing understanding about the importance of their role in maintaining environmental cleanliness.
2. To overcome the limitations of the waste transport fleet and infrastructure at temporary disposal sites, significant investment is required. The local government should consider increasing the budget for purchasing an adequate transport fleet and improving waste sorting facilities at temporary disposal sites. Collaboration with the private sector and seeking financial support from third parties can be strategic steps to meet the necessary funding requirements.
3. Changing the waste disposal system at the final disposal site (TPA) is essential. It is recommended to shift to a more controlled system, such as the use of modern technology in waste management. Implementing an effective and environmentally friendly recycling system should be considered to reduce the negative impact on the environment around the TPA. Active community participation in this process can create a better understanding of the benefits of sustainability.
4. The importance of increasing community understanding of waste management should be emphasized. Targeted and continuous educational campaigns are needed to provide information on household waste sorting, reducing plastic use, and the benefits of recycling. An educated community can become a better partner in maintaining the sustainability of the waste management system.

By implementing these recommendations, Saumlaki City is expected to overcome challenges in waste management and achieve the desired sustainability goals. This process requires synergy between the government, community, and private sector to create a clean, healthy, and sustainable environment.

REFERENCES

- Abdussamad, H. Z., & Sik, M. S. (2021). *Metode penelitian kualitatif*. CV. Syakir Media Press.
- Arraniri, I., et al. (2021). *Manajemen sumber daya manusia*. Penerbit Insania.



- Dadang Solihin, S. E. (2021). *ADMINISTRASI PEMBANGUNAN*. Jakad Media Publishing.
- Goraph, F. A., IP, S., & IP, M. (2020). *Organisasi Dan Manajemen Pemerintahan*. CV. Pilar Nusantara.
- Nugroho, R. (2023). *Public Policy 7: Dinamika Kebijakan Publik, Analisis Kebijakan Publik, Manajemen Politik Kebijakan Publik, Etika Kebijakan Publik*. PT Elex Media Komputindo.
- Ps, T. P. (2008). *Penanganan dan pengolahan sampah*. Penebar Swadaya Grup.
- Purba, S., et al. (2022). *Kebijakan Publik*. Get Press.
- Purnomo, A., Putri, R. A., & Rosyidah, E. (2017). *Kamus Manajemen Sumber Daya Manusia*. Unusida Press.
- Purnomo, C. W. (2021). *Solusi pengelolaan sampah Kota*. UGM PRESS.
- Rahayu, A. S. (2022). *Pengantar Pemerintahan Daerah: Kajian Teori, Hukum dan Aplikasinya*. Sinar Grafika.
- Sarie, F., et al. (2023). *Metodelogi penelitian*. Cendikia Mulia Mandiri.
- Semiawan, C. R. (2010). *Metode penelitian kualitatif*. Grasindo.
- Sewang, S. E., et al. (2023). *PRINSIP MANAJEMEN*. Cendikia Mulia Mandiri.
- Solong, H. A. (2020). *Manajemen Pengembangan Sumber Daya Manusia Menunjang Kinerja Aparatur Berkualitas*. Deepublish.
- Sumarto, R. H. (2015). Model Kepemimpinan Dalam Reformasi Birokrasi Pemerintah. *Efisiensi: Kajian Ilmu Administrasi*, 13(1).
- Terry, G. R. (2021). *Dasar-Dasar Manajemen Edisi Revisi*. Bumi Aksara.
- Widodo, J. (2021). *Analisis kebijakan publik: Konsep dan aplikasi analisis proses kebijakan publik*. Media Nusa Creative (MNC Publishing).
- Wijaya, H. (2019). *ANALISIS DATA KUALITATIF: sebuah tinjauan teori & praktik*. Sekolah Tinggi Theologia Jaffray.





IMPROVEMENT OF TEACHER PERFORMANCE THROUGH THE IMPLEMENTATION OF A REWARD AND MOTIVATION SYSTEM IN NABIGH ACADEMIC SOPPENG EARLY CHILDHOOD EDUCATION

PENINGKATAN KINERJA GURU MELALUI IMPLEMENTASI SISTEM PENGHARGAAN DAN MOTIVASI PADA PAUD NABIGH AKADEMIK SOPPENG

Zul Fadli

Pattimura University
zf.fadli12@gmail.com

Abstract

This research delves into the implementation of the reward and motivation system to enhance the performance of teachers in early childhood education (PAUD) at Nabigh Academic Soppeng. The research findings reveal that despite the implementation of the system, significant challenges related to the uncertainty of reward criteria and a lack of teacher participation persist. Teachers express the desire for more involvement in determining criteria and personalized recognition. The impact of this system varies, with some teachers reporting increased motivation and performance, while others perceive less significant effects. Motivational and performance factors involve not only the reward system but also leadership support and the work environment. The gap between ideal expectations and implementation reality opens opportunities for improvement, emphasizing the need for revised reward criteria and increased transparency. Recommendations involve enhancing teacher participation in system design and integrating broader motivational factors. The implications of these findings provide a foundation for Nabigh Academic Soppeng PAUD to improve the effectiveness of the motivation system and the potential enhancement of teacher performance. In conclusion, this research contributes to the literature on PAUD motivation management, highlighting the importance of continuous improvement to achieve a system more tailored to teachers' needs and the goals of early childhood education.

Keywords: Teacher Performance, Rewards, Motivation, Early Childhood Education.

Abstrak

Penelitian ini mendalami implementasi sistem penghargaan dan motivasi dalam meningkatkan kinerja guru di Pendidikan Anak Usia Dini (PAUD) Nabigh Akademik Soppeng. Hasil penelitian mengungkapkan bahwa meskipun sistem telah diimplementasikan, tantangan signifikan terkait ketidakpastian kriteria penghargaan dan kurangnya partisipasi guru masih terjadi. Guru mengharapkan lebih banyak keterlibatan dalam menentukan kriteria dan pengakuan yang lebih personal. Dampak sistem ini juga bervariasi, dengan beberapa guru melaporkan peningkatan motivasi dan kinerja, sementara yang lain merasakan dampak yang kurang signifikan. Faktor-faktor motivasi dan kinerja melibatkan tidak hanya sistem penghargaan tetapi juga dukungan kepemimpinan dan iklim kerja. Kesenjangan antara harapan ideal dan realitas implementasi membuka peluang perbaikan, dengan perlunya revisi kriteria penghargaan dan peningkatan transparansi. Rekomendasi melibatkan



peningkatan partisipasi guru dalam perancangan sistem dan integrasi faktor motivasi yang lebih luas. Implikasi temuan ini memberikan dasar bagi PAUD Nabigh Akademik Soppeng untuk meningkatkan efektivitas sistem motivasi dan potensi peningkatan kinerja guru. Kesimpulannya, penelitian ini memberikan kontribusi pada literatur manajemen motivasi PAUD dan menyoroti pentingnya perbaikan berkelanjutan untuk mencapai sistem yang lebih sesuai dengan kebutuhan guru dan tujuan pendidikan anak usia dini.

Kata Kunci: Kinerja Guru, Penghargaan, Motivasi, PAUD.

INTRODUCTION

Early childhood education (ECE) plays a crucial role in laying the foundation for a child's development. During these early years, children undergo character formation, social skills development, and basic learning that will shape their future academic success and lives. The quality of education at the ECE level is not only the responsibility of teachers but also involves various factors, including school management, curriculum implementation, and the importance of motivating teachers to give their best.

Teacher motivation in the context of ECE has a significant impact on the quality of learning. Motivated teachers tend to provide more effective teaching and create a positive learning environment. Therefore, the concept of implementing a reward and motivation system to improve teacher performance in ECE emerges. This system is designed to recognize achievements, enhance teachers' intrinsic motivation, and stimulate dedication to educational tasks.

ECE covers the educational phase for children from ages 0 to 6, often considered a critical period in a child's development. In the ECE environment, teachers are not only information deliverers but also facilitators of the child's holistic development. They are responsible for creating positive learning experiences, supporting emotional growth, and stimulating cognitive and social development.

The importance of early childhood education has been globally recognized, and many countries have committed to improving access to and quality of ECE. However, the challenges faced by ECE teachers are often complex, including the demands for flexibility, multitasking skills, and limited resource availability. Therefore, strategies to increase the motivation and performance of teachers at this level have a significant impact on the quality of education provided to children.

Teacher motivation is a determining factor in the success of the education system. Motivated teachers positively influence student motivation, create a positive classroom atmosphere, and ultimately impact students' academic achievements. In the context of ECE, teacher motivation is not only related to academic achievements but also to children's social skills, creativity, and character development.

In recent years, research has highlighted the importance of teacher motivation and its impact on student learning. Teacher motivation is not just about financial incentives but also related to the recognition of their contributions, job satisfaction, and confidence in carrying out their duties. Implementing a reward and motivation system in ECE is expected to be a solution to enhance teacher motivation and performance.

A reward and motivation system is a performance management strategy aimed at improving teacher performance through the provision of certain rewards and incentives. At the ECE level, this strategy not only provides material encouragement but also recognizes achievements, offers public acknowledgment, and promotes professional development. Implementing this system aims to create a positive work environment, encourage teacher participation in the learning process, and improve teaching quality.

Although this system has great potential, certain challenges must be overcome. One major challenge is designing it appropriately according to the ECE context. A deep understanding of the



specific needs and characteristics of ECE teachers, as well as the uniqueness of learning at this level, is required. Additionally, special attention must be paid to fair and acceptable reward criteria for all teachers to avoid dissatisfaction or uncertainty.

Other challenges include cultural and social factors. ECE may operate in diverse social and cultural contexts, which can influence perceptions and responses to the motivation system. Therefore, the implementation of the reward and motivation system needs to consider the local context, cultural values, and community expectations for early childhood education.

In evaluating the reward and motivation system in ECE, it is important to understand its potential benefits and impacts. Benefits include increased intrinsic teacher motivation, improved teaching quality, and the creation of a positive learning environment. This system can also increase teacher loyalty to the institution, reduce burnout, and stimulate active participation in curriculum development.

However, the impact is not always uniform. There is potential for inequality or dissatisfaction if the reward criteria are not applied fairly. Additionally, the system's effectiveness can be influenced by the level of teacher involvement, leadership support, and other factors affecting motivation.

At the point of this research, it is evident that the implementation of the reward and motivation system in early childhood education (ECE) at PAUD Nabigh Akademik Soppeng has not reached an optimal level. This includes uncertainties related to reward criteria, a lack of teacher participation in system design, and varying impacts on teacher performance. The system implemented does not fully reflect the ideal expectations in terms of transparency, teacher involvement, and clear reward criteria.

In the normative ideal of this research, the expectations and ideal standards that should be implemented in the reward and motivation system at PAUD Nabigh Akademik Soppeng are detailed. There should be active involvement of teachers in the system design, clear reward criteria, and more personalized recognition. Teachers are expected to feel the positive and equitable impact of the motivation system, providing maximum encouragement for their intrinsic motivation and performance. In the ideal normative concept, this system should be the main driver for improving the quality of learning and creating a positive work environment in ECE. The alignment between the current state and the ideal state is the goal of this research, which aims to formulate recommendations and necessary improvements to steer the implementation of the motivation system towards the desired expectations and ideal standards.

By considering the context, challenges, and potential of implementing a reward and motivation system in ECE, this research aims to provide deep insights into how this system is applied, its success extent, and its impact on teacher performance. The results of this research are expected to provide practical guidance for ECE institutions in designing, implementing, and evaluating an effective reward and motivation system.

By understanding the background and context of early childhood education, this research is expected to make a tangible contribution to our understanding of how teacher motivation can be enhanced through the implementation of an appropriate reward system. Through better understanding the challenges and benefits of this system, we can develop more effective strategies to improve the quality of early childhood education, positively impact children's development, and create a strong foundation for future success.

METHODS

Research Methodology

This research employs a qualitative approach with the aim of gaining in-depth insights into the impact of the reward and motivation system on teacher performance in early childhood education (ECE) at PAUD Nabigh Akademik Soppeng. The choice of a qualitative approach is based on the recognition



that complex and contextual phenomena such as teacher motivation and performance cannot be fully measured and understood through quantitative data alone. This approach allows researchers to explore subjective aspects, perceptions, and contexts that may not be revealed through numbers. With insights gained from qualitative methods, this research aims to provide a more holistic understanding of how the motivation system affects teacher performance and the contextual factors that play a role in this process. This approach provides space to explore narratives, beliefs, and interpersonal dynamics that can contribute significantly to understanding this phenomenon.

Population and Sample

The research targets the entire population of ECE teachers at PAUD Nabigh Akademik Soppeng, totaling 10 individuals, as the subjects of the study. The sample is selected purposefully, choosing teachers with sufficient work experience and active participation in the implementation of the reward and motivation system at the institution. This selection criterion aims to ensure that respondents have a deep understanding of the aspects being studied, namely the impact of the motivation system on teacher performance in ECE. A sample size of 6 individuals, consisting of 1 principal, 1 vice principal, and 4 teachers, is chosen to cover diverse perspectives. This way, an adequate representation of various backgrounds and roles within the ECE institution will be obtained. Using this approach, the research is expected to produce rich and relevant data to comprehensively understand the impact of the motivation system on teacher performance in the ECE environment of PAUD Nabigh Akademik Soppeng.

Research Instruments

The primary instruments used in this research are structured interview guides and participatory observation. Structured interviews will be the main tool to gain in-depth understanding from the selected teachers. These interviews will focus on their perceptions of the reward system, motivation, and its concrete impact on their daily performance. Through interviews, this research aims to uncover the subjective views and direct experiences of teachers related to the implementation of the system. Meanwhile, participatory observation adds an additional dimension by providing direct insight into how the motivation system is integrated into daily activities and dynamics at PAUD Nabigh Akademik Soppeng. These instruments were developed considering the theoretical framework underlying this research and the specific objectives it aims to achieve. By combining in-depth interviews and participatory observations, this research is expected to generate comprehensive and contextual data to understand the impact of the motivation system on teacher performance at the ECE level.

Data Collection Procedure

Data collection in this research is conducted through a series of structured steps. The initial stage involves identifying and selecting teachers as the main respondents based on purposive sampling criteria. This process ensures that the selected teachers have significant experience and involvement in the implementation of the reward and motivation system at PAUD Nabigh Akademik Soppeng. The next step involves conducting structured interviews, where researchers will approach the selected teachers to gain an in-depth understanding of their perceptions and experiences related to the motivation system implemented. These interviews are designed to gather subjective information and the direct views of the teachers. Meanwhile, participatory observation is conducted directly in the ECE environment to record the practice of implementing the motivation system in daily contexts. By combining in-depth interviews and participatory observations, this research aims to collect holistic and contextual data to comprehensively describe the impact of the motivation system on teacher performance at the ECE level.



Data Analysis Method

Data analysis in this research will adopt an inductive approach using thematic methods. Interview transcripts and observation notes will be manually analyzed to identify thematic patterns that emerge from the collected qualitative data. Data will be categorized into themes relevant to the research objectives, such as teachers' perceptions of the reward system, motivational factors recognized by teachers, and the impact of the motivation system implementation on their performance. This thematic analysis process allows researchers to explore and understand the complex dynamics between existing variables. The results of this analysis will provide a comprehensive picture of how the reward and motivation system interacts with teacher performance in early childhood education (ECE) at PAUD Nabigh Akademik Soppeng. Focusing on thematic findings, this research aims to generate deep and contextual insights into the implementation of the motivation system at the ECE level.

RESULTS AND DISCUSSION

Results

Reality of the Implementation of the Reward and Motivation System

This study provides an overview of the implementation of the reward and motivation system at PAUD Nabigh Akademik Soppeng. From the findings, it can be concluded that while the system is operational, there are several challenges that need attention.

The teachers at PAUD Nabigh Akademik Soppeng acknowledge the institution's efforts to provide incentives to boost motivation, such as recognition of achievements and material bonuses. However, there is uncertainty regarding the criteria for rewards, which poses a challenge to the system. Teachers feel a lack of clarity about what is recognized as an achievement, creating dissatisfaction and uncertainty among them.

Additionally, this study highlights the low involvement of teachers in decision-making related to the reward and motivation system. Teacher participation in designing and managing this system is crucial for successful implementation. This factor affects the acceptance and effectiveness of the system.

Expectations and Ideal Standards

The expectations and ideal standards for the reward and motivation system at PAUD Nabigh Akademik Soppeng include key elements aimed at creating a supportive, motivating, and performance-enhancing work environment for teachers. In this ideal framework, teacher participation in formulating reward criteria is considered crucial. It is hoped that this participation will create a mutual understanding of what is recognized as an achievement, provide room for more personal recognition, and account for the uniqueness and contributions of each teacher.

Moreover, in this ideal scenario, the reward and motivation system is expected to provide stronger and deeper motivational incentives for teachers. The incentives given should genuinely recognize their efforts and achievements, not just in material form but also in the form of appreciation for their dedication and contributions to early childhood education. This system is thus expected to create a positive work climate, motivate teachers to improve the quality of teaching, and ultimately, significantly impact their performance.

The importance of clarity regarding the incentives provided is also prominent in these expectations and ideal standards. Teachers are expected to have a clear understanding of the types of rewards they can receive as a result of their excellent performance. This clarity is seen as a key factor in creating healthy expectations and stimulating intrinsic motivation, which can, in turn, lead to overall performance improvement. By integrating these elements, the reward and motivation system is hoped to create an



environment that supports the professional and personal growth of teachers and enhances the quality of early childhood education at PAUD Nabigh Akademik Soppeng.

Impact of Implementation on Teacher Performance

The research results reveal that the impact of implementing the reward and motivation system at PAUD Nabigh Akademik Soppeng varies among the teachers involved. Some teachers reported positive experiences with increased motivation and performance as a direct result of the system, while others felt that the impact was less significant or even negligible. Certain factors are the main determinants of this variation.

Transparency in reward criteria is a significant factor, where teachers who feel the criteria are clearer and fairer tend to experience a more positive impact. Additionally, the type of incentives given also plays a key role; incentives perceived as valuable and appropriate to the teacher's efforts tend to significantly boost motivation. Personal recognition, such as more personalized awards relevant to individual contributions, also enhances the positive impact.

Factors Influencing Teacher Motivation and Performance

The analysis of factors influencing teacher motivation and performance at PAUD Nabigh Akademik Soppeng highlights that rewards, while important, are not the only elements affecting their motivation. Several other factors also contribute significantly to teachers' motivation and performance levels.

Leadership support is identified as a crucial factor in motivating teachers. Leadership that provides direction, support, and appreciation for teachers' efforts can directly influence their motivation levels. Clarity of organizational goals also plays a vital role; teachers with a clear understanding of the organization's goals and vision are more likely to be motivated to contribute to achieving those goals.

Moreover, a positive work climate is another determining factor for teacher motivation and performance. A supportive, collaborative work environment that provides a sense of fairness can create a motivating atmosphere for teachers to contribute maximally. Dissatisfaction or conflict within the work climate can hinder motivation and negatively affect performance.

The Gap Between Das Sein and Das Sollen

The gap between Das Sein (actual condition) and Das Sollen (ideal expectation) in the implementation of the reward and motivation system at PAUD Nabigh Akademik Soppeng is illustrated through several critical aspects. Firstly, there is a lack of teacher involvement in designing the reward system. Ideally, teacher participation in the design process is expected to create a system that better aligns with their needs and expectations, but in reality, this involvement is still lacking.

Next, the lack of clarity in reward criteria is one of the obstacles creating a gap between actual conditions and ideal expectations. Teachers want clarity about what is considered an achievement and the rewards they can receive, but uncertainty about this still exists. This creates dissatisfaction and uncertainty among teachers, which can harm their motivation and performance.

Furthermore, the difference between Das Sein and Das Sollen also includes uncertainty regarding the expected impact of the reward and motivation system. Teachers hope that the implementation of this system will have a significant positive impact on their motivation and performance, but the uncertainty about the actual impact of the system creates doubt among them.

Overall, the gap between actual conditions and ideal expectations illustrates the potential improvements that can be made in the implementation of the reward and motivation system at PAUD Nabigh Akademik Soppeng. Recommendations for improvement involve increasing teacher



involvement in system design, clarifying reward criteria, and clarifying the expected impact to minimize the gap and achieve alignment between Das Sein and Das Sollen in this context.

Discussion

Reality of the Implementation of the Reward and Motivation System

The research results reveal that although the reward and motivation system has been implemented at PAUD Nabigh Akademik Soppeng, there are still several obstacles affecting its effectiveness. One of the main challenges identified is the uncertainty and lack of teacher participation in designing the reward criteria. Teacher involvement in this design process is crucial to creating a system that better meets their needs and expectations. However, in reality, this lack of participation creates a gap between ideal expectations and actual implementation.

Uncertainty regarding reward criteria is one of the crucial aspects that can create dissatisfaction among teachers. Teachers desire clarity about what is considered an achievement and the rewards they can receive, but this lack of clarity creates uncertainty that can hinder their motivation and performance.

While the system has been implemented with the intent to enhance teacher performance, the existing uncertainty and lack of teacher involvement create a gap between their expectations of the system and its actual implementation. This poses a challenge in achieving alignment between the ideal vision of the reward system and the reality on the ground. Therefore, recommendations for improvement are directed toward increasing teacher participation in designing the reward criteria, so the system can be more targeted and responsive to the needs of teachers at PAUD Nabigh Akademik Soppeng. By actively involving teachers, it is hoped that better alignment between ideal expectations and actual implementation in the context of rewards and motivation at the institution can be achieved.

Expectations and Ideal Standards

In the context of expectations and ideal standards, teachers at PAUD Nabigh Akademik Soppeng express a desire to have a more active role in determining reward criteria and receiving more personal recognition. The research findings depict that these ideal expectations align with the concept of empowering teachers by designing a motivation system that can enhance their intrinsic motivation.

Active teacher participation in determining reward criteria reflects a desire to involve them directly in decision-making processes that affect their motivation and performance. Through this participation, it is hoped that teachers can convey their views, needs, and expectations so that the resulting criteria better reflect the realities and needs in the field.

Moreover, the demand for personal recognition reflects a push to acknowledge the unique roles and contributions of each teacher. Personal recognition is expected to have a more positive impact, as it creates an emotional bond and appreciates the individuality in their performance.

These expectations and ideal standards not only reflect the individual aspirations of teachers but also represent the need to create a work environment that empowers, supports, and motivates. Empowering teachers to design a motivation system creates a bond between policy and field practice, which can enhance the quality of early childhood education at PAUD Nabigh Akademik Soppeng. By combining the ideal expectations of teachers and principles of empowerment, the institution can move towards a motivation system that better meets individual needs and collective goals.

Impact of Implementation on Teacher Performance

The impact of implementing the reward and motivation system at PAUD Nabigh Akademik Soppeng shows significant variation among the teachers involved. Some teachers report increased motivation and performance as a direct result of this system, while others feel that the impact is not as



significant or even negligible. This difference creates a complex dynamic that demands a deep understanding of the factors influencing individual perceptions and responses to the system.

Uncertainty regarding reward criteria and types of incentives might be one reason for these differing impacts. Teachers who feel certain about what is recognized as an achievement and the types of incentives offered are more likely to experience a positive impact. Conversely, uncertainty or lack of clarity in this regard can create dissatisfaction or uncertainty, which can reduce the effectiveness of the motivation system.

Therefore, more attention needs to be paid to certain aspects of the implementation of this reward and motivation system. This includes increasing transparency in reward criteria so that teachers have a clearer understanding of what is recognized as an achievement and the types of incentives they can obtain. Additionally, diversifying the types of incentives and personal recognition can be strategic steps to minimize uncertainty and create a more uniform impact among teachers.

By understanding these differences in impact, the institution can design more targeted improvement strategies, enhancing the effectiveness of the motivation system and creating an environment that motivates all educational staff. Thus, implementing holistic changes can be key to achieving the success of the reward and motivation system at PAUD Nabigh Akademik Soppeng.

Factors Influencing Teacher Motivation and Performance

Factors influencing teacher motivation and performance at PAUD Nabigh Akademik Soppeng are not limited to the implementation of the reward system. Research findings show that other factors, such as leadership support and work climate, also significantly contribute to the motivation and performance levels of teachers. This understanding highlights the complexity of interactions between these factors in creating a supportive and motivating work environment for teachers.

Leadership support is identified as an important factor that can influence teacher motivation and performance. Leadership that provides clear guidance, offers support, and appreciates teachers' efforts can have a significant positive impact. Additionally, a positive work climate is another determining factor, where a supportive, collaborative work environment that provides a sense of fairness can create a motivating atmosphere for teachers to contribute maximally.

The importance of these factors highlights the need for a holistic approach to implementing a motivation system. This approach should consider various factors, including the design of the reward system, leadership support, and creating a conducive work climate. The success of the implementation of the motivation system does not only depend on the system's existence but also on its ability to create synergy between the various elements that influence teacher motivation and performance.

Therefore, educational institutions need to adopt a holistic approach that includes developing comprehensive policies, engaging effective leadership, and creating a positive work climate. Only by understanding and integrating all these factors can the success of achieving optimal motivation and performance among teachers at PAUD Nabigh Akademik Soppeng be realized.

The Gap Between Das Sein and Das Sollen

The gap between the reality of implementation and ideal expectations in the motivation system at PAUD Nabigh Akademik Soppeng creates opportunities for improvement and enhancement. The difference between reality and the expectations of teachers highlights the need for an in-depth evaluation of the design and execution of the existing motivation system. These findings reflect the importance of adjustments and refinements to make the system more effective in increasing teacher motivation and performance.



Differences in perception and a lack of clarity in reward criteria are the main focus of this gap. Teachers who feel unclear about what is considered an achievement or do not receive adequate recognition may experience dissatisfaction and decreased motivation. Therefore, the need for revision and refinement in the design of the motivation system is crucial to addressing these inconsistencies.

This gap can be addressed through an open and collaborative dialogue with teachers. Actively involving them in the improvement and refinement process can help achieve consensus on what is expected from the motivation system. Adjustments in system design, clarification of reward criteria, and the provision of clearer and more relevant recognition can be concrete steps to reduce the gap between reality and expectations.

This dialogue process also creates an opportunity to understand the individual needs and preferences of teachers, which in turn can guide more accurate and profound changes. Thus, this gap is not just a barrier but also a foundation for continuous innovation and improvement in creating a more effective motivation system that aligns with the expectations of all parties involved at PAUD Nabigh Akademik Soppeng.

CONCLUSION

Conclusion

This research explores the implementation of the reward and motivation system at PAUD Nabigh Akademik Soppeng, focusing on its impact on teacher performance. Several key findings highlight the complexity and dynamic interaction between elements that influence teacher motivation and performance. The conclusions of this study are as follows:

1. The research results indicate that the implementation of the reward and motivation system at PAUD Nabigh Akademik Soppeng has had varying impacts among the teachers involved. Some teachers reported increased motivation and performance, while others felt that the impact was not as significant. Factors such as uncertainty regarding reward criteria, types of incentives, and lack of participation in system design may be the causes of these differences.
2. The gap between the reality of implementation and ideal expectations highlights the need for improvements in the design of the motivation system. Differences in perception and a lack of clarity in reward criteria create dissatisfaction and uncertainty among teachers. Therefore, revisions and refinements in the system design are needed to better align with teacher expectations.
3. These findings show that teacher motivation and performance factors are not limited to the reward system alone but also involve factors such as leadership support and work climate. This conclusion underscores the complexity of interactions between these elements and suggests the need for a holistic approach to implementing a motivation system.
4. The gap between *Das Sein* (actual condition) and *Das Sollen* (ideal expectation) shows that improvements can be achieved through open dialogue with teachers. Active teacher participation in system design can help achieve better consensus, overcome uncertainties, and create a motivation system that aligns more closely with their expectations.

In conclusion, this research provides important insights into the implementation of a motivation system in the context of PAUD Nabigh Akademik Soppeng. These findings can serve as a basis for continuous improvement, focusing on increasing transparency in reward criteria, more effective leadership support, and more active teacher participation in designing the motivation system. Through these efforts, it is hoped that PAUD Nabigh Akademik Soppeng can achieve a more effective and supportive motivation system to enhance the quality of early childhood education.



Recommendations

Based on the research conclusions regarding the implementation of the reward and motivation system at PAUD Nabigh Akademik Soppeng, several recommendations can be proposed to improve the effectiveness and suitability of the motivation system. These recommendations are aimed at improving system design, teacher participation, and integrating factors that influence teacher motivation and performance.

1. Address uncertainties regarding reward criteria and types of incentives. Clearer clarification of what is recognized as an achievement, personal recognition, and increased transparency in the reward mechanism can enhance teachers' understanding and trust in the system. Revisions of reward criteria should involve open dialogue with teachers to ensure their expectations and preferences are accommodated.
2. Teachers should be actively involved in the design process so that the system reflects their needs and expectations. Increasing participation can be done through workshops, regular meetings, or dialogue forums involving all relevant parties. More active participation will enhance teachers' sense of ownership and involvement in the overall process.
3. Leadership support and creating a positive work climate have significant impacts on teacher motivation and performance. Therefore, it is recommended to enhance leadership training, facilitate effective communication between leaders and teachers, and create supportive and motivating working conditions.
4. The system should be articulated within the context of the organization's vision and overall goals, encompassing the values of early childhood education. Ensuring that the motivation system aligns with the institution's mission and values can strengthen teachers' commitment to early childhood education goals.

By implementing these recommendations, it is hoped that PAUD Nabigh Akademik Soppeng can optimize the implementation of the motivation system, create a more motivating work environment, and enhance the overall quality of early childhood education.

REFERENCES

- Aguswara, W. W., & Rachmadtullah, R. (2017). Pengaruh gaya kepemimpinan kepala sekolah dan iklim organisasi dengan kinerja guru pendidikan anak usia dini. *Jurnal Pendidikan Usia Dini*, 11(2), 369-385.
- Andriana, J. (2018). Kinerja Guru PAUD ditinjau dari Kualifikasi Pendidik, Pengalaman Mengajar, dan Pelatihan. *Jurnal Ilmiah Potensia*, 3(2), 83-88.
- Andriani, D. (2018). Pengaruh Pembinaan, disiplin dan motivasi terhadap kinerja guru PAUD Kec. Talang Kelapa. *PERNIK: Jurnal Pendidikan Anak Usia Dini*, 1(1), 38-52.
- Dewi, I., & Suryana, D. (2020). Analisis evaluasi kinerja pendidik paud di PAUD Al azhar bukittinggi. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 4(2), 1051-1059.
- Hamsal, H., Nurman, N., & Razak, A. (2023). Pengaruh Motivasi Dan Kompensasi, Terhadap Kinerja Guru PAUD Se-Kecamatan Tambang Kabupaten Kampar. *Management Studies and Entrepreneurship Journal (MSEJ)*, 4(1), 21-34.
- Hariyanti, D. P. D. (2012, November). Peningkatan kinerja guru PAUD dalam rangka pengembangan karakter peserta didik. In *PENILAIAN KINERJA UNTUK PENINGKATAN PROFESIONALISME GURU BERKELANJUTAN*.
- Jaya, W. S. (2022). Kinerja guru ditinjau dari gaya kepemimpinan kepala sekolah dan motivasi kerja. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 6(3), 1286-1294.



- Khosiah, S., & Maryani, K. (2020). Pengaruh Gaya Kepemimpinan Demokratis Kepala Sekolah Terhadap Kinerja Guru PAUD. *Jurnal Golden Age*, 4(01), 20-29.
- Maknun, N. L. L., Arbarini, M., & Pranoto, Y. K. S. (2023). Peran Kepemimpinan Kepala Sekolah Terhadap Kinerja Guru Masa Era New Normal di PAUD Kabupaten Kudus. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 7(1), 1035-1043.
- Raharja, R. M., Wardhani, R. D. K., & Kusumawardani, R. (2021). Kinerja Guru Paud Dalam Penilaian Perkembangan Anak Di Masa Pandemi Covid-19. *JCE (Journal of Childhood Education)*, 5(2), 460-472.
- Ramadoni, W., Kusmintardjo, K., & Arifin, I. (2016). Kepemimpinan Kepala Sekolah dalam Upaya Peningkatan Kinerja Guru (Studi Multi Kasus di Paud Islam Sabilillah dan Sdn Tanjungsari 1 Kabupaten Sidoarjo). *Jurnal Pendidikan: Teori, Penelitian, Dan Pengembangan*, 1(8), 1500-1504.
- Royani, I., & Fitria, H. (2020). Pengaruh Kepemimpinan Kepala PAUD dan Kompetensi Guru terhadap Kinerja Guru. *Journal of Innovation in Teaching and Instructional Media*, 1(1), 36-45.
- Sari, Y. E., Kurniah, N., & Sumarsih, S. (2016). Hubungan Kepemimpinan Kepala Sekolah Terhadap Kinerja Guru PAUD Sekecamatan Muara Bangkahulu. *Jurnal Ilmiah Potensia*, 1(2), 107-112.
- Utaminingsih, S., MM, P., Hardhienata, H. S., & Sunardi, H. O. (2022). *PENINGKATAN KINERJA GURU (Tuntutan Profesionalitas Guru PAUD)*. Pascal Books.
- Wijania, I. W. (2017). Kontribusi Kepemimpinan Pelayan Kepala Sekolah, Motivasi Kerja Dan Disiplin Kerja Terhadap Kinerja Guru. *Jurnal Ilmiah Pendidikan Dan Pembelajaran*, 1(3).
- Yustiyawan, R. H., Supriyanto, A., & Mustiningsih, M. (2016). Hubungan Pengembangan Karir, Kompetensi Profesional, dan Motivasi Kerja dengan Kinerja Guru Paud di Kecamatan Driyorejo Kabupaten Gresik. *Jurnal Pendidikan: Teori, Penelitian, dan Pengembangan*, 1(7), 1297-1304.
- Yusuf, F. A., & Basrowi, B. (2023). Pengaruh Kepemimpinan Visioner dan Manajemen Berbasis Sekolah terhadap Kinerja Guru dan Implikasinya pada Kualitas PAUD. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 7(3), 2851-2861.





IMPROVING CHILDREN'S QUALITY OF LIFE THROUGH CHILD-FRIENDLY CITY POLICIES IN THE REGIONAL AUTONOMY SYSTEM

PENINGKATAN KUALITAS HIDUP ANAK MELALUI KEBIJAKAN KOTA LAYAK ANAK DALAM SISTEM OTONOMI DAERAH

Afdhal

Pattimura University
afdhal@fisip.ac.id

Abstract

This article examines the issues of children's quality of life in Indonesia, particularly in cities that are not conducive for children, characterized by a high level of violence against children, inadequate infrastructure meeting children's needs, and low stakeholder involvement in policies and child protection in those cities. The research aims to describe efforts to improve the quality of life for children through the implementation of child-friendly city policies within the framework of regional autonomy. The research methodology employed a qualitative approach, utilizing literature reviews and policy studies. The results of this study indicate that efforts to enhance Child-Friendly Cities within the regional autonomy policy framework involve the development of policies, programs, strategies, and development activities prioritizing children's rights. Initiatives include the declaration of Child-Friendly City policies, the development of infrastructure tailored to children's needs, and the enhancement of child protection systems. The implications of this research provide a clear understanding of the crucial role of active stakeholder involvement in building child-friendly cities. By integrating principles of regional autonomy policies, this study establishes a foundation for formulating more effective strategies and programs to enhance the quality of life for children in cities. Furthermore, it offers recommendations for the implementation of similar policies in different regional contexts.

Keywords: Children's Quality of Life, Child-Friendly City Policies, Regional Autonomy, Child Protection System

Abstrak

Artikel ini mengkaji masalah kualitas hidup anak di Indonesia, terutama di kota yang tidak layak bagi anak-anak, yang ditandai oleh tingginya tingkat kekerasan terhadap anak, kurangnya infrastruktur yang sesuai dengan kebutuhan anak, dan rendahnya keterlibatan stakeholder dalam kebijakan dan perlindungan anak di kota tersebut. Penelitian ini bertujuan untuk mendeskripsikan upaya peningkatan kualitas hidup anak melalui implementasi kebijakan kota layak anak dalam konteks sistem otonomi daerah. Metode penelitian yang diterapkan menggunakan pendekatan kualitatif dengan menerapkan studi pustaka dan studi kebijakan. Hasil penelitian ini menunjukkan bahwa upaya peningkatan Kota Ramah Anak dalam kerangka kebijakan otonomi daerah melibatkan pengembangan kebijakan, program, strategi, dan kegiatan pembangunan yang mengutamakan hak anak. Beberapa inisiatif yang dilakukan melibatkan pencanangan kebijakan Kota Layak Anak, pengembangan infrastruktur yang sesuai dengan



kebutuhan anak, dan peningkatan sistem perlindungan anak. Implikasi dari penelitian ini memberikan gambaran yang jelas tentang pentingnya keterlibatan aktif stakeholder dalam membangun kota yang ramah anak. Dengan menggabungkan prinsip-prinsip kebijakan otonomi daerah, penelitian ini menyediakan dasar untuk menyusun strategi dan program yang lebih efektif dalam meningkatkan kualitas hidup anak di kota, serta menawarkan rekomendasi untuk penerapan kebijakan serupa di konteks daerah lain.

Kata Kunci: Kualitas Hidup Anak, Kebijakan Kota Layak Anak, Otonomi Daerah, Sistem Perlindungan Anak.

INTRODUCTION

Several cities in various countries face challenges in achieving the status of "child-friendly cities." One example can be found in Lagos, Nigeria, where the lack of green open spaces and limited educational facilities pose serious problems (Shiru et al., 2020). According to a UNICEF report, only a small portion of Lagos has easy access to parks or open areas, leaving children with insufficient space to play and develop healthily (Adewuya & Oladipo, 2020). A similar situation is seen in Cairo, Egypt, where children's educational services are still inadequate. Data from the World Health Organization (WHO) indicates that a significant number of children in the city struggle to access quality education. The lack of adequate educational facilities can negatively impact children's intellectual development, providing a concrete picture of the unsuitability of some cities for fostering children's growth and development (Abd Elgalil et al., 2023; Abdel Wahed Ahmed & Abd El Monem, 2020). Additionally, Karachi, Pakistan, faces similar challenges with limited access to child healthcare services. The low availability of adequate health facilities can make it difficult for children to receive timely care, increasing the risk of diseases and health disorders that can affect their future (Majeed & Munir, 2020; Moyebi et al., 2023; Razzaq et al., 2020).

Moreover, Indonesia also faces similar challenges related to child-friendly cities. There are three main issues regarding child-friendly cities in Indonesia: high levels of violence against children (Ekaningtyas, 2020; Hidayat, 2021); lack of child-friendly city infrastructure (Anggrain & Mashur, 2022; Maulana, 2021); and low stakeholder involvement in child protection (Fajri et al., 2020; Yuningsih & Dwimawanti, 2021). The high levels of violence against children in Indonesia are deeply concerning, as this violence takes various forms, including physical, sexual, and emotional abuse (Herman & Yuningsih, 2023). Children often become victims in various contexts, whether at home, school, or in the wider community. Addressing this issue seriously requires understanding and addressing its driving factors (Hanandini, 2022). A lack of awareness about children's rights is one of the triggers of violence, alongside cultural norms that may indirectly support such actions. Additionally, the inability of the child protection system to handle cases of violence exacerbates this situation (Sulistiyowati & Jajuli, 2021).

Furthermore, findings highlight that most cities in Indonesia still face serious challenges related to infrastructure that does not support children's development (Widyaputra, 2020). In daily reality, some issues include the lack of safe playgrounds, damaged sidewalks, and limited access to educational and healthcare facilities. For instance, in Jakarta, there is a noticeable shortage of suitable playgrounds for children, leaving little space for safe play that fosters their creativity (Suwandi et al., 2023). Additionally, damaged sidewalks in several cities, such as Surabaya, create an unfriendly environment for children. The discomfort and danger posed by poor sidewalk conditions can negatively impact children's mobility and safety when engaging in outdoor activities. Moreover, the lack of access to educational and healthcare facilities in cities like Bandung can be an obstacle to children's development.



Limited educational facilities can hinder children's access to quality education, while insufficient healthcare facilities can endanger their physical and mental well-being (Noor, 2023).

Additionally, it was found that there is a low level of child protection policies at the national level in Indonesia, starting with involvement and implementation at the city level (Pertiwi & Saimima, 2022). Concrete examples can be found in several major cities like Medan, where, despite existing child protection policies, local government involvement remains minimal in overseeing and enforcing their implementation. The impact of this is seen in the lack of concrete efforts to ensure the safety and well-being of children in urban environments (Jailani, 2021; Nisa, 2021; Sinaga, 2022). The importance of understanding and becoming aware of the need to involve various parties in child protection cannot be ignored. For example, in Yogyakarta, there is still a lack of active community participation in supporting child protection programs. Low community involvement can be a significant obstacle to creating a safe environment that supports children's growth. The lack of involvement from the private sector is also a serious issue that can affect the implementation of child protection policies (Silalahi, 2023; Siskasari, 2021; Wijaya, 2020). In some cities, like Surabaya, cooperation between the government and the private sector in supporting child protection initiatives has not been optimal. This results in limited resources and financial support that could strengthen child protection programs at the local level. Additionally, the lack of coordination between relevant parties, such as the government and non-governmental organizations, can hinder the implementation of child protection policies (Faisea & Dan, 2020; Kurniawan & Zalzabilla, 2023; Tizaka & Ismail, 2023; Ulya, 2020). Evidence of this can be found in various cities in Indonesia, where the lack of inter-agency coordination often hampers the effectiveness of child protection programs and creates gaps in child protection across different regions.

This research aims to describe the steps taken to improve children's quality of life through the implementation of child-friendly city policies within the context of regional autonomy. The unique position of this research lies in its focus on the development of child-friendly cities within the framework of regional autonomy policies, involving the development of policies, programs, strategies, and development activities that specifically emphasize children's rights. The research argument provides an up-to-date and innovative perspective on the critical role of regional autonomy policies in creating environments that support optimal child development. The steps taken include the initiation of child-friendly city policies, the development of infrastructure tailored to children's needs, and the enhancement of child protection systems. By detailing these initiatives, this research provides in-depth insights into the practical implementation of child-friendly city policies within the framework of regional autonomy.

METHODS

The research methodology applied in this study is a qualitative approach, used to detail and describe issues related to children's quality of life, the implementation of child-friendly city policies, and the aspects of regional autonomy that influence these improvement efforts (Creswell, 2017). This approach allows the researcher to gain an in-depth understanding of the complexities of the problems faced by children in non-child-friendly cities. The research design involves two key elements: a literature review and a policy study. The literature review is used to detail the theoretical context, while the policy study is used to analyze the role and implementation of child-friendly city policies within the regional autonomy system. The combination of these two designs provides a comprehensive framework for understanding the issues and related policies.

Data collection was conducted through policy document analysis, literature review, and interviews with various stakeholders. Representatives from local governments, children's organizations, and community groups involved in efforts to improve children's quality of life were included in the interviews to gain diverse perspectives. The collected data were then analyzed using descriptive and policy analysis approaches. The aim is to identify the factors influencing the implementation of child-friendly city policies in the context of regional autonomy. This analysis provides a comprehensive



overview of the constraints and potential solutions for creating a better environment for children in cities.

The development of research criteria and instruments involved identifying indicators of children's quality of life, policy effectiveness, and the level of stakeholder involvement. Interview guidelines, policy analysis, and evaluation of child-friendly city infrastructure were used as instruments to collect relevant and valid data. To ensure the validity of the research, data triangulation was applied by combining data from various sources. The reliability of the research was maintained through careful documentation of research methods and procedures. With this method, the research provides a strong foundation for understanding and addressing the challenges of improving children's quality of life through child-friendly city policies within the regional autonomy system.

RESULTS AND DISCUSSION

Result

Public Policy Formulation

The definition of public policy given by Demenge and Robert (2024) is the authoritative allocation of values for the entire society or the enforced allocation of values to members of the society. This view is supported by Alderman & Blair (2024), who interpret public policy as a projected program concerning goals, values, and practices, or, in other words, a program for achieving goals and values in a directed practice. Farazmand (2023) also contributes his perspective by stating that public policy is a specific action followed and implemented by an actor or a group of actors to address an issue or matter of concern.

Weible (2023) emphasizes that a country's competitive advantage depends on its ability to create an environment that encourages the competitiveness of each actor within it. In a global context, the public sector's task is to create an environment that enables each development actor to become competitive. Therefore, effective public policy is crucial for building this environment. The success of a country in creating policies that encourage each citizen to build their own competitiveness is the cornerstone of an ideal public policy, which not only avoids dependency but also promotes independence.

From the above exposition, it can be concluded that public policy can be interpreted as management in achieving national goals, especially in the era of regional autonomy. Gazzola et al. (2023) add two characteristics of public policy: clarity in understanding and measurement. Public policy becomes something easily understood because it relates to actions taken to achieve national goals. Moreover, public policy is also something that is easy to measure because it has clear parameters, namely the extent to which progress in achieving national aspirations has been reached.

Legislation is a tangible manifestation of public policy, where policies such as legislative regulations can be considered public goods. Bovaird & Löffler (2023) describe the characteristics of legislative regulations as public goods, which include the hierarchy of policy processes. The policy process at the highest policy level produces institutional arrangements such as laws, which are then translated by the policy process at the organizational level into lower institutional arrangements such as government regulations, presidential decrees (Kepres), or ministerial decrees (Kepmen). These institutional arrangements then influence the pattern of outcomes from specific policies at the operational level.

From the explanation of the policy process, it can be concluded that policy levels have significant implications for interaction patterns at the lower levels. Bovaird & Löffler (2023) state that public policy acts as a source of change or institutional renewal within society. Although legislation as a public good is considered related to the public interest, Sudarsono acknowledges that the government does not



always succeed in achieving the desired results from the public interest perspective, aligning with Barzeley's view.

Bovaird & Löffler (2023) highlight the incompleteness of legislation as a limitation of human ability to anticipate future problems. Therefore, Sudarsono emphasizes that legislation must continuously undergo improvements and refinements to address these limitations.

On the other hand, in the implementation of public policy, especially in third-world countries, Smith shows that it becomes a serious challenge for the effectiveness of policy implementation in the social and economic development fields. Gazzola et al. (2023) add that these obstacles are due to ineffectiveness, inefficiency, and a lack of goal orientation within the government bureaucracy. Therefore, to understand public policy implementation, it is not only important to look at the behavior of public administration institutions or public entities responsible for a program but also necessary to consider the various networks of political, economic, and social forces that influence the behavior involved in a program from policy formulation to implementation.

To clarify the relationship between policy, implementation, and public policy evaluation, Bovaird & Löffler (2023) depict the schematic cycle of public policy. Policy implementation, according to Bovaird & Löffler (2023), is considered a process toward policy goals through administrative and political steps. Gazzola et al. (2023) add that policy implementation is not only related to the mechanism of breaking down political decisions into routine procedures through bureaucratic channels but also involves conflicts and decisions about who gets what from the policy.

Policy implementation involves applying basic policy decisions, whether in the form of laws or more specific decisions and orders regarding the problems to be addressed and the goals to be achieved. Gazzola et al. (2023) highlight two actors involved in policy implementation: people outside the bureaucracy who may be involved in implementation activities and the bureaucrats themselves engaged in functional activities. Bovaird & Löffler (2023) emphasize that policy implementation analysis plays an important role in identifying variables that influence the achievement of formal goals throughout the implementation process. Based on this description, it can be concluded that the general function of public policy implementation is to establish relationships that enable policy goals and objectives to be achieved as the final outcome of government activities. As part of the public policy cycle, implementation is a critical step that allows the transformation of policy into concrete actions with real impact.

Discussion

Public Policy and Regional Autonomy

The broad autonomy authority refers to the freedom regions have to manage governance in all aspects, except in the areas of foreign policy, defense and security, justice, monetary and fiscal matters, religion, and other fields that will be determined by government regulation. Additionally, autonomy includes the full right to manage the entire process of governance, from planning, implementation, monitoring, control, and evaluation (Afdhal et al., 2023).

Real autonomy, on the other hand, is the freedom for regions to manage governmental authority in specific areas that are evidently present and needed in that region. This includes aspects that develop and exist in the region (Afdhal et al., 2022). Meanwhile, responsible autonomy signifies the responsibilities that must be borne by the region as a consequence of the granting of rights and authority. This responsibility includes the region's duties and obligations in achieving autonomy goals, such as improving public welfare services, developing democratic life, justice, equity, maintaining appropriate relationships between the Central and Regional Governments, and inter-regional relationships, all aimed at preserving the integrity of the Unitary State of the Republic of Indonesia.



According to Afdhal et al. (2023), there are three main tasks in society that form the foundation for society to live, grow, and develop, which are service tasks, development tasks, and empowerment tasks. Organizations are born with the purpose of carrying out these three tasks. Public service tasks involve the obligation to provide services to the public without discrimination and at affordable costs for all levels of society, including the most disadvantaged groups. This task is carried out by the state through executive power or government.

From this task classification, it can be concluded that the primary task of the government is to provide public services. Evaluation and assessment of the achievement of public service tasks become relevant to measure how well the government has carried out its mission. However, such evaluation can only be done if there are appropriate measuring tools or indicators aligned with the given tasks or missions. Minimum service standards are known as one such measuring tool or indicator.

Afdhal et al. (2023) argue that public services provided by the government can be distributive, redistributive, and regulatory within the context of public policy. Despite their diversity, generically, government services can be divided into three main categories: (1) primary services, as fundamental services; (2) secondary services, as supportive services focusing on specific groups; and (3) tertiary services, as services indirectly related to the general public.

From this task division, it can be concluded that the primary function of the government is to provide public services. The evaluation and assessment of the achievement of public service tasks are crucial to determining how well the government has fulfilled its mission. However, such evaluation can only be done if there are appropriate measuring tools or indicators aligned with the given tasks or missions. One such measuring tool, known as minimum service standards, plays a crucial role in assessing these achievements.

Afdhal et al. (2023) also state that public services provided by the government can take various forms, including distributive, redistributive, and regulatory, within the context of public policy. Although diverse, generally, government services can be categorized into three main types. First, primary services refer to fundamental services. Second are secondary services, which are supportive services focusing on specific groups. Third, tertiary services, which are indirectly related to the general public,.

Creating Child-Friendly Cities

Since September 5, 1990, Indonesia has ratified the Convention on the Rights of the Child, demonstrating the country's commitment to respecting and fulfilling children's rights. Article 28B(2) of the 1945 Constitution enshrines this commitment, while Law No. 23 of 2002 on Child Protection implements it. To integrate children's rights into the development process, the Indonesian government developed the Child-Friendly City policy. The concept of a child-friendly city (Kota Ramah Anak, KRA) emerged following research on children's perceptions of the environment. The study highlighted that an optimal urban environment for children is one with a strong physical and social community, clear and firm rules, opportunities for children, and educational facilities that allow them to explore and understand their environment and the world.

At the Habitat II Conference or City Summit in Istanbul, Turkey, government representatives from various countries, including Indonesia, gathered and signed an Action Program to Make Settlements More Comfortable and Sustainable. The program explicitly emphasizes that children and adolescents should have decent living conditions, be involved in decision-making processes in their cities and communities, and have the right to fulfill their needs and play roles in their environment. UNICEF introduced the Child-Friendly City Initiative during the City Summit, with a focus on urban children,



particularly those from impoverished and marginalized families, to guarantee their basic rights through basic services and protection.

According to the UNICEF Innocenti Research Centre, a child-friendly city is one that guarantees every child's rights as a city resident. As city residents, children have the right to participate in decision-making that affects their city. They have the right to express their opinions about the vision of the city they want, and they can actively participate in family, community, and social life. These rights include the right to receive basic services such as health and education, access to clean drinking water, and adequate sanitation. Children also deserve protection from exploitation, cruelty, and abuse.

Additionally, as part of a child-friendly city, children have the right to feel safe walking on the streets, meeting, and playing with their friends. They also have the right to green spaces in which to plant and interact with animals. To ensure a healthy life, the environment in which they live should be free of pollution. Children have the right to city cultural and social activities. Every city resident's rights reflect the importance of justice and equality, irrespective of their ethnicity, religion, wealth, gender, or disability. Thus, every resident, including children, should have equitable access to all services.

In the effort to create a child-friendly public policy bureaucracy, it is essential to meet the necessary qualifications. Children have a significant influence on city decisions, and therefore, public policy should consider the diversity of community groups. Integrating this aspect into comprehensive work programs can promote equal opportunities in various aspects of life, including for children. When local governments pay special attention to children, their lives tend to improve.

Adequate understanding and appropriate policies towards children can contribute positively to the city's progress and its social structure. Valuing children's opinions about the city they want is an important step in child-friendly public policy. Listening to people's voices, including those of children, is an essential aspect of developing child-friendly policies. Local governments, like Jakarta, have initiated smoke-free zones to reflect a child-friendly city. These zones not only create a healthier environment for children but also protect them from health risks that can hinder their growth and development.

Green open spaces (RTH) play a dual role in the city, serving not only as city parks but also as safe and comfortable play areas for children. The existence of more play and creativity spaces for children reflects the capability of public policies to meet community needs and play a role in family, community, and social life. In this context, it is important for local governments to create adequate bureaucracy and legal frameworks to support children's growth and development. Policies may include meeting toddlers' nutritional needs through *posyandu* or *dasawisma*.

Every child has the right to receive basic services such as health care and education. Therefore, local governments need to include free basic education for children on their agendas. Free education has the potential to encourage parents to send their children to school, but the success of this program also highly depends on the quality of adequate teaching resources. Without such support, free basic education will only be a meaningless program. The same applies to health guarantees, where local governments should prioritize the availability of easily accessible health centers to ensure the welfare of their citizens.

Ensuring the availability of fresh drinking water and adequate sanitation is essential for improving human life quality. Therefore, local governments need to make clean water a basic agenda item for community life. Similarly, sanitation, such as having latrines in every household, should be mandatory. Local governments must strive to meet these conditions through family welfare programs. Local governments must address the urgency of protecting children from exploitation, cruelty, and abuse. In this regard, local governments need to establish regulations that encompass all societal layers. Punishing perpetrators of violence against children is an effective step in protecting their future.



The safety of walking on the streets is a vital basic need in everyday life. The availability of adequate roads not only supports general public mobility, but also has a positive impact on children's lives. Children will feel at home on safe, well-maintained streets. Additionally, excellent roads facilitate children meeting and playing with their friends, creating enjoyable experiences. The presence of green spaces for plants and animals, as well as a pollution-free environment, has a significant impact on the community's survival, including that of children. Providing green open spaces (RTH) not only ensures sustainability but also creates a healthy and child-friendly environment.

Children's participation in cultural and social activities is a matter that needs attention. Governments should make regulations supporting children's involvement in cultural and social activities. This creates opportunities for children to grow, interact, and share experiences according to their capabilities. The principle of equality in public services is very important. Every citizen, regardless of ethnicity, religion, wealth, gender, and disability, must have equal access to every service. Social differences or personal identity should not limit these rights, as the government should establish policies to ensure this.

CONCLUSION

Conclusion

The research findings conclude that serious attention is required to address the issue of children's quality of life in Indonesia, particularly in cities that are not yet child-friendly. The high levels of violence against children, the lack of infrastructure that meets their needs, and the low involvement of stakeholders in child policy and protection are the main problems that need immediate resolution. This study provides a comprehensive overview of efforts to improve children's quality of life by implementing child-friendly city policies within the context of the regional autonomy system. The qualitative research method, with a literature review and policy study approach, offers an in-depth understanding of the complexity of these issues. The results indicate that efforts to enhance child-friendly cities within the framework of regional autonomy involve the development of policies, programs, strategies, and development activities that prioritize children's rights. Some initiatives, such as the declaration of child-friendly city policies, the development of infrastructure that meets children's needs, and the improvement of child protection systems, are positive steps in creating a better environment for children's growth and development.

Recommendations

This research highlights the importance of active stakeholder involvement in developing child-friendly cities. By aligning the principles of regional autonomy policy, this study offers a solid foundation for formulating more effective strategies and programs to enhance children's quality of life in urban areas. Involving various parties, such as local governments, community organizations, educators, and child advocacy groups, will enrich perspectives and ensure that children's needs are the primary focus of policy planning and implementation.

The recommendations from this research are not only beneficial for the studied city but can also serve as valuable guidelines for other regions looking to implement similar policies. By adopting an inclusive and participatory approach, efforts to improve urban environments for the welfare of children will become more sustainable and have a broader impact. Active stakeholder involvement ensures that the policies created are not only relevant to local needs, but also accepted and supported by the local community.

Thus, the results of this research underscore the importance of collaboration between the government, the community, and various other related parties in creating urban environments that



support children's optimal growth and development. We hope that this approach will create more inclusive, safe, and enjoyable cities for children, enabling them to reach their full potential and develop into a resilient and capable generation.

REFERENCES

- Abd Elgalil, H. M., Abd El-Hakam, F. E.-Z., Farrag, I. M., Abdelmohsen, S. R., & Elkolaly, H. (2023). Undergraduate Students' perceptions of online assessment during COVID-19 pandemic at faculty of medicine for girls, Al-Azhar University, Cairo, Egypt. *Innovations in Education and Teaching International*, 60(2), 185–195.
- Abdel Wahed Ahmed, M. M., & Abd El Monem, N. (2020). Sustainable and green transportation for a better quality of life case study greater Cairo–Egypt. *HBRC Journal*, 16(1), 17–37.
- Adewuya, A. O., & Oladipo, E. O. (2020). Prevalence and associated factors for suicidal behaviors (ideation, planning, and attempt) among high school adolescents in Lagos, Nigeria. *European Child & Adolescent Psychiatry*, 29(11), 1503–1512.
- Afdhal, Fadli, Z., Almahdali, H., Kunda, A., Zahari, A. F. M., Septiana, A. R., Kalsum, U., Sakir, A. R., & Salampessy, M. (2022). *Administrasi Publik*. Get Press.
- Afdhal, Luturmas, Y., Yunus, N. R., Mujib, F., Amane, A. P. O., & Mustanir, A. (2023). *Otonomi Daerah, Pemerintah Daerah, Desa & Lembaga Kemasyarakatan Desa*. Global Eksekutif Teknologi.
- Alderman, B. L., & Blair, R. D. (2024). *Monopsony in Labor Markets: Theory, Evidence, and Public Policy*. Cambridge University Press.
- Anggrain, N. W., & Mashur, D. (2022). Collaborative Governance Dinas Sosial Provinsi Riau dalam Menangani Penyandang Masalah Kesejahteraan Sosial (PMKS). *Journal of Social and Policy Issues*, 34–38.
- Bovaird, T., & Löffler, E. (2023). The changing context of public policy. In *Public management and governance* (pp. 14–26). Routledge.
- Creswell, J. W. (2017). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Sage publications.
- Demenge, V., & Robert, M. (2024). The bureaucratic field and the sociology of public policy: from the structure of the administration to the production of policies. In *Bringing Bourdieu's Theory of Fields to Critical Policy Analysis* (pp. 109–127). Edward Elgar Publishing.
- Ekaningtyas, N. L. D. (2020). Psikologi komunikasi dan kekerasan seksual pada anak usia dini. *Pratama Widya: Jurnal Pendidikan Anak Usia Dini*, 5(2), 147–158.
- Faisea, M. Z. M., & Dan, L. A. (2020). Strategi Pemerintah Kota Surabaya dalam Pengembangan Kebijakan Kabupaten/Kota Layak Anak di Kota Surabaya. *Syntax Idea*, 2(6).
- Fajri, H., Akmal, A. D., Saputra, B., Maani, K. D., Permana, I., Wahyuni, N., & Syafiril, R. (2020). Peningkatan Keterlibatan Stakeholder Dalam Perumusan Peraturan Nagari Layak Anak. *Dinamisia: Jurnal Pengabdian Kepada Masyarakat*, 4(4), 754–761.
- Farzmand, A. (2023). *Global encyclopedia of public administration, public policy, and governance*. Springer Nature.
- Gazzola, M., Grin, F., Cardinal, L., & Heugh, K. (2023). Language policy and planning: from theory to practice. In *The Routledge Handbook of Language Policy and Planning*. Routledge.
- Hanandini, D. (2022). Tindak Kekerasan Terhadap Anak di Sekolah: Bentuk dan Aktor Pelaku. *Jurnal Administrasi Publik Dan Pemerintahan*, 1(1), 1–12.
- Herman, D. D., & Yuningsih, Y. (2023). Peran Unit Pelayanan Perempuan Dan Anak (Ppa) Polrestabes Bandung Dalam Menangani Kekerasan Terhadap Anak Di Kota Bandung. *Pekerjaan Sosial*, 22(1).



- Hidayat, A. (2021). Kekerasan Terhadap Anak dan Perempuan. *AL-MURABBI: Jurnal Studi Kependidikan Dan Keislaman*, 8(1), 22–33.
- Jailani, M. (2021). *Renstra Dinas Pemberdayaan Perempuan, Perlindungan Anak Dan Pemberdayaan Masyarakat Kota Medan Tahun 2021-2026*.
- Kurniawan, B. A., & Zalzabilla, P. A. (2023). Evaluasi Program Pemerintah Tentang Layak Anak di Kota Surabaya. *Public Sphere Review*, 114–122.
- Majeed, M. M., & Munir, A. (2020). Pakistan: country report on children's environmental health. *Reviews on Environmental Health*, 35(1), 57–63.
- Maulana, M. R. (2021). Pemahaman dan Pembelajaran Tahap Perencanaan dan Penyiapan Pembangunan Infrastruktur di Indonesia Melalui Skema Kerja Sama Pemerintah dan Badan dalam Penyediaan Infrastruktur (KPBU). *JISIP (Jurnal Ilmu Sosial Dan Pendidikan)*, 5(1).
- Moyebi, O. D., Sannoh, F., Fatmi, Z., Siddique, A., Khan, K., Zeb, J., Hussain, M. M., Carpenter, D. O., & Khwaja, H. A. (2023). State of gaseous air pollutants and resulting health effects in Karachi, Pakistan. *Environmental Monitoring and Assessment*, 195(2), 266.
- Nisa, S. (2021). *Implementasi Kebijakan Kota Layak Anak dalam Pemenuhan Hak-Hak Anak di Kota Medan*. Universitas Sumatera Utara.
- Noor, T. R. (2023). Evaluasi Desain Infrastruktur Pendidikan Ramah Anak. *International Muktamar for Arabic Language and Islamic Studies*, 2(1), 243–264.
- Pertiwi, Y. W., & Saimima, I. D. S. (2022). Peranan Kontrol Sosial Dan Optimalisasi Kebijakan Keadilan Restoratif Pada Anak Pelaku Tindak Pidana. *Jurnal Hukum Dan Peradilan*, 11, 109.
- Razzaq, S. S., Zubair, A., Naz, S. A., Yasmeen, K., Shafique, M., Jabeen, N., & Magsi, A. (2020). Detection of Hazardous Contaminants in Ground Water Resources: An Alarming Situation for Public Health in Karachi, Pakistan. *Pakistan Journal of Analytical & Environmental Chemistry*, 21(2), 322–331.
- Shiru, M. S., Shahid, S., Shiru, S., Chung, E. S., Alias, N., Ahmed, K., Dioha, E. C., Sa'adi, Z., Salman, S., & Noor, M. (2020). Challenges in water resources of Lagos mega city of Nigeria in the context of climate change. *Journal of Water and Climate Change*, 11(4), 1067–1083.
- Silalahi, E. M. (2023). *Upaya Pencegahan Kekerasan Seksual Terhadap Anak Oleh Dinas Pemberdayaan Perempuan-Perlindungan Anak, dan Pengendalian Penduduk dan Keluarga Berencana Kota Yogyakarta*. Universitas Atma Jaya Yogyakarta.
- Sinaga, K. (2022). *Analisis Sistem Pengendalian Internal Dalam Peningkatan Kualitas Laporan Keuangan Pada Dinas Pemberdayaan Perempuan, Perlindungan Anak, dan Pemberdayaan Masyarakat (DP3APM) Kota Medan*. Universitas Islam Negeri Sumatera Utara.
- Siskasari, A. (2021). *Sinergitas Pemerintah, Swasta Dan Civil Society Dalam Mewujudkan Kota Layak Anak Di Kota Yogyakarta*. Universitas Muhammadiyah Yogyakarta.
- Sulistiyowati, N., & Jajuli, M. (2021). Klusterisasi Kasus Kekerasan Terhadap Anak dan Perempuan Berdasarkan Algoritma K-Means. *Generation Journal*, 5(2), 69–80.
- Suwandi, S., Kurniawati, N. I., & Werdani, R. E. (2023). Revitalisasi Fasilitas Belajar Anak Usia Dini dalam Mendukung Tujuan SDG's Sektor Pendidikan di Pendidikan Anak Usia Dini. *GOTAVA Jurnal Pengabdian Kepada Masyarakat*, 1(1), 17–20.
- Tizaka, R. M. P., & Ismail, H. (2023). Analisis Pelaksanaan Program Sekolah Ramah Anak di Surabaya: Studi pada SDN Kedungdoro V dalam Menciptakan Lingkungan Sekolah yang Bebas Kekerasan Fisik dan Bullying. *Jurnal Ilmiah Dan Karya Mahasiswa*, 1(6), 218–232.
- Ulya, Z. (2020). Penyelenggaraan Perlindungan Anak dalam Perda Kota Surabaya No. 6 Tahun 2011 Perspektif Maqasid Al-Shari'ah. *Al-Jinayah: Jurnal Hukum Pidana Islam*, 6(1), 27–56.
- Weible, C. M. (2023). Advancing Policy Process Research and Theories. In *Theories of the Policy*



- Process* (pp. 355–372). Routledge.
- Widyaputra, P. K. (2020). *Penerapan Infrastruktur Hijau Di Berbagai Negara: Mendukung Pembangunan Berkelanjutan Berbasis Lingkungan*.
- Wijaya, V. R. M. (2020). Tinjauan Yuridis Mengenai Pemberian Perlindungan Hukum Terhadap Anak Korban Eksploitasi Seksual (Kajian Daerah Surabaya Semarang Yogyakarta). *Hukum Pidana Dan Pembangunan Hukum*, 2(2).
- Yuniningsih, T., & Dwimawanti, I. H. (2021). Peran Stakeholder Dalam Upaya Reintegrasi Sosial Kasus Kekerasan Pada Anak di Kota Semarang. *Jurnal Ilmu Administrasi Negara ASIAN (Asosiasi Ilmuwan Administrasi Negara)*, 9(1), 249–260.





INTEGRATION OF ENGINEERING AND POLITICS IN WATER MANAGEMENT: A HOLISTIC APPROACH TO ENHANCING PUBLIC POLICY

INTEGRASI TEKNIK DAN POLITIK DALAM PENGELOLAAN AIR: PENDEKATAN HOLISTIK DALAM MENINGKATKAN KEBIJAKAN PUBLIK

Ony Frengky Rumihin

17 August 1945 University Surabaya

ony.rumihin@gmail.com

Abstract

This article explores the evolving concept of water governance across various nations, serving as a reference for effective and sustainable water management. Aligned with Sustainable Development Goal (SDG) No. 6, which focuses on Clean Water and Sanitation, Indonesia faces unique challenges due to its dual climate patterns of rainy and dry seasons. These climatic variations necessitate sound water resource management to address water shortages during droughts, prevent drought-related disasters and mitigate flood risks during the rainy season. Utilizing a literature review methodology, this research aims to comprehend the development of knowledge in the water governance concept, incorporating both technical and political dimensions in policy formulation. The findings underscore the significance of collaboration, cooperation, and participation among the government, community, and private sector in implementing effective water governance. Embracing the governance paradigm, the key takeaway is the need for collective efforts to establish robust water resource management, thereby ensuring the success of the clean water and sanitation program nationwide by 2030. However, it is crucial to acknowledge that not all variants of water governance models can be universally applied, considering the diverse institutional contexts and political cultures across different regions in Indonesia. Despite these challenges, this research underscores the importance of a holistic approach that integrates both technical and political aspects in water management policies, providing a foundation for achieving sustainable water access and sanitation goals.

Keywords: Water governance Model, Water Management, Public Policy, Sustainable Development Goals, Holistic Approach

Abstrak

Artikel ini mengkaji konsep perkembangan tata kelola air yang tersebar di berbagai negara, menjadi acuan untuk pengelolaan air yang efektif dan berkelanjutan. Sejalan dengan Tujuan Pembangunan Berkelanjutan (Sustainable Development Goals/SDGs) No. 6 yang menitikberatkan pada Akses Air Bersih dan Sanitasi, Indonesia menghadapi tantangan khusus akibat dua iklim yang dimilikinya, yakni musim hujan dan kemarau. Variasi iklim ini menuntut manajemen sumber daya air yang baik untuk mengatasi kekurangan air saat kemarau, mencegah bencana kekeringan, dan mengurangi risiko banjir saat musim hujan. Penelitian ini menggunakan metode studi pustaka dengan tujuan memahami



perkembangan konsep tata kelola air dalam pendekatan teknik dan politik dalam penyusunan kebijakan. Temuan penelitian menekankan pentingnya kolaborasi, kerjasama, dan partisipasi dari pemerintah, masyarakat, dan sektor swasta dalam menerapkan tata kelola air yang efektif. Mengadopsi paradigma tata kelola, kesimpulan utama adalah perlunya upaya bersama untuk membentuk manajemen sumber daya air yang kuat, guna menjamin kesuksesan program air bersih dan sanitasi di seluruh Indonesia hingga tahun 2030. Namun, penting untuk diakui bahwa tidak semua varian model tata kelola air dapat diterapkan secara universal, mengingat konteks institusional dan budaya politik yang beragam di setiap daerah di Indonesia. Meskipun demikian, penelitian ini menegaskan pentingnya pendekatan holistik yang mengintegrasikan aspek teknik dan politik dalam kebijakan pengelolaan air, memberikan dasar untuk mencapai tujuan akses air bersih dan sanitasi yang berkelanjutan.

Kata Kunci: Model *Water governance*, Pengelolaan Air, Kebijakan Publik, Sustainable Development Goals, Pendekatan Holistik.

INTRODUCTION

From 2011 to 2014, the Community-Based Urban Sanitation Program (SPBM), part of the Millennium Development Goals (MDGs), laid the foundation for the ongoing Sustainable Development Goals (SDGs). This program aims to improve sanitation infrastructure through community participation. SPBM engaged various stakeholders at the central, provincial, and local levels, making it a comprehensive community-based program (Kusumastuti et al., 2015; Rumihin et al., 2020). The program received support from the Urban Sanitation and Rural Infrastructure (USRI) Support for PNPM Mandiri, a continuation of RIS PNPM-2, which covers urban sanitation activities. Asian Development Bank (ADB) Loan No. 2768-INO funded the program over four years, from 2011 to 2014, with the aim of enhancing sanitation services through Community Direct Assistance Funds (BLM) (Dewi, 2024; Rumihin et al., 2024). The program distributed these funds to 1,350 urban communities, each ward receiving Rp. 350 million to enhance community-based sanitation services. Hence, SPBM was a concrete step in achieving MDG targets and laid the groundwork for ongoing sustainable development goals through the SDGs (Wicaksono et al., 2024).

The program was implemented to address discrepancies between achievements and goals due to various issues in the drinking water and sanitation sectors. Several obstacles stand in the way of achieving the Millennium Development Goals (MDGs) in sanitation. 1) Low access to sanitation and poor management quality, particularly regarding open defecation, have reached a governance level of 30 for water management in Indonesia. 2) Inadequate and ineffective institutions, along with the incompleteness of relevant legislation, contribute to the situation. 3) There are limited alternative funding options for development activities. 4) Minimal community and private sector involvement in supporting sanitation targets (Suyeno et al., 2024).

In 2018, data from the Central Statistics Agency (BPS) showed that access to safe drinking water was at 88%, while access to adequate sanitation was only at 75%. This data revealed that 32 million people still lacked access to safe drinking water, and 67 million people lacked adequate sanitation services (Akbar et al., 2023; Annahar et al., 2023). This highlights significant challenges in this sector. By the end of 2019, the Ministry of National Development Planning/Bappenas, together with the National Housing, Settlement, Drinking Water, and Sanitation Working Group (PPAS) and development partners in the sanitation and drinking water sectors, held the National Sanitation and Drinking Water Conference (KSAN) in Jakarta. Established in 2007, KSAN serves as a biennial forum that fosters commitment and participation from various stakeholders, such as central and local governments, donor agencies, NGOs, the private sector, educational institutions, communities, media, and the public, with the goal of promoting access to sanitation and drinking water that aligns with the



Sustainable Development Goals (SDGs) by 2030 (Sahide et al., 2023). KSAN formed a collective spirit to achieve safe, innovative, and sustainable sanitation and drinking water for all.

The sixth goal outlines a set of targets and milestones aimed for achievement by 2030. Each target addresses critical aspects of creating positive change in the drinking water and sanitation sectors. Firstly, this goal aims to achieve universal and affordable access to drinking water by 2030, emphasizing the importance of providing safe and decent water for all individuals. Secondly, the target focuses on adequate sanitation and hygiene access, with particular emphasis on ending open defecation and addressing the specific needs of women, girls, and vulnerable populations (Pambudi & Kusumanto, 2023; Rahmani et al., 2023). Additionally, the goal targets improving water quality through concrete measures such as reducing pollution, eliminating waste, decreasing the disposal of hazardous chemicals, and managing wastewater more effectively. Furthermore, it focuses on water use efficiency across all sectors to address water scarcity and emphasizes the importance of integrated water resource management through cross-border cooperation. The sixth goal also includes aspects of protecting and restoring water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers, and lakes. Alongside this, the goal underscores the need for expanded cooperation and capacity-building support for developing countries in various activities and programs related to clean water and sanitation (Pradipta et al., 2023). Ultimately, the sixth goal highlights the importance of supporting and enhancing local community participation in improving water and sanitation management. All these targets create a comprehensive framework for achieving positive and sustainable change in the drinking water and sanitation sectors by 2030.

This initiative is noteworthy as it reflects the growing awareness among the government, private sector, and community that universal access and fulfillment of clean water needs are a shared responsibility. This phenomenon indicates that the governance paradigm is evolving in Indonesia, particularly in achieving Sustainable Development Goal (SDG) number 6, which is Access to Clean Water and Sanitation. As this development progresses, research on water management shifts towards the concept of water governance. However, the concept of water governance in many studies tends to be case-specific. The most critical water governance issues occur in developing countries that frequently face hydrological problems such as floods and droughts, high uncertainty about water sources, dependence on agriculture and irrigation, rapid population growth, increasing water demand, and low prioritization of water management infrastructure coupled with weak public institutions managing water resources, faced with greater uncertainty due to climate change (Yan, 2023; Yasmin et al., 2023).

As a result, there is greater insecurity regarding water resources and deeper conflicts, especially in poor countries (Camargo et al., 2023; Widiarto et al., 2023). As stated by Camargo et al. (2023) and Widiarto et al. (2023), the concept of water governance has not yet experienced significant development in terms of substance, theory, and methodology, resulting in minimal impact on policy improvement. Araral and Yu then proposed three types of analytical frameworks for water governance research, namely: public sector economic perspective, institutional economic perspective, and public administration perspective. These three frameworks were created from studies by Camargo et al. (2023) and Widiarto et al. (2023) that looked at common issues in Asian countries when it comes to water governance. These issues included the responsibility of water sector managers, pricing policies, the connection between legal bases and water management policies, managing finances and investments, managers' functional abilities, regulatory mechanisms, and managers' responsibility.

The research results indicate that government management often faces various obstacles, particularly in aspects of regulation, accountability, and the functional capacity of managers. These weaknesses contribute to the public's mistrust of government involvement in public sector administration. Therefore, this study aims to explore the concept of water governance to formulate a



water management model in Indonesia. Currently, clean water sources are increasingly scarce, and changing community habits regarding the use and utilization of clean water is a challenging task. We hope to implement the concept of water governance to establish a common foundation that the government, private sector, and community can use, particularly in designing government policies that seriously consider environmental sustainability as an integral part of their governance.

METHODS

The methodology used in this research is a literature review method aimed at understanding the development of the concept of water governance in technical and political approaches to policy formulation (Bryman, 2016). The research steps entail identifying and analyzing water governance-related literature, with a focus on the development of the water governance concept and its application in technical and political aspects.

We first conducted literature searches through academic sources, scientific journals, and official publications related to water governance. The literature was chosen based on its relevance to the research objective of exploring the concept's development. We then performed an in-depth analysis of the collected literature. The analysis focused on the integration of technical and political aspects into the water governance concept, aiming to gain a comprehensive understanding of the roles of both aspects in water management policy formulation.

We used the results of the literature analysis as a foundation to synthesize knowledge and identify emerging trends, challenges, and opportunities in the development of the water governance concept. This literature review method provides deep insights into the latest developments in technical and political approaches in water management and lays the groundwork for further research.

RESULTS AND DISCUSSION

Results

With the shift from government to governance, the most significant change is that the state is no longer the sole dominant actor in public policy-making. In the governance paradigm, actors and institutions play vital roles in the decision-making or policy process, involving all elements of national life: the state or government, the private sector, and society (Wyborn et al., 2023). Gemede et al. (2024) explain that governance is a more inclusive concept than the previous one, government. Governance not only encompasses the relationship between society and the government, but it also involves mediating behavior through values, norms, and, in some cases, law. The concept of governance includes elements such as laws, regulations, and institutions, but it also refers to government policies and actions, domestic activities, and influence networks involving international market forces, the private sector, and civil society. All these elements collectively create dynamics that influence the political system in which the concept of governance operates (Wei et al., 2023).

Mostly used in complex processes where participation involves multiple parties beyond national boundaries, governance has evolved into an umbrella concept. Decision-making not only involves community institutions but also the private sector, civil society, and the general public. A good governance framework emphasizes new processes and methods where the actions of all involved parties must be transparent and accountable. This includes the relationship between the government and society, involving laws, regulations, institutions, and formal and informal interactions that influence how the governmental system functions. This framework highlights the importance of involving broader voices, responsibility, transparency, and accountability of both formal and informal organizations in every process (Abbas et al., 2023).



As the governance paradigm evolves and environmental issues escalate, the concept of sustainable development has also adopted the governance paradigm (Handayani et al., 2023; Hellberg, 2023). It is believed that this paradigm facilitates sustainable development by involving various actors who are equally responsible for environmental sustainability. When discussing water management, considered a public issue with human rights, various challenges arise, both in terms of water resources and fair distribution, which can lead to horizontal conflicts (Grigg, 2023). Accordingly, this study uses the paradigm of water governance as a framework for understanding how the government formulates wastewater management policies in Bandung City.

According to the UN definition, water governance encompasses various political, social, economic, and administrative systems applied to develop and manage water resources and provide water services at different societal levels (Tyhotyholo & Ncube, 2023). This concept has become an essential instrument in the new sustainable development framework, adopted and emphasized by various international organizations such as the UN, OECD, and the World Bank. UNDESA provides another definition, describing water governance as a concept involving social, political, organizational, economic, and administrative aspects, including relationships related to water resource development and management. This definition emphasizes how institutions operate and how regulations influence political actions and social concerns through various formal and informal instruments (Bitterman et al., 2023).

Water governance, as a concept, recognizes that public policy is not solely within the realm of the government but also requires involvement and participation from civil society and the private sector. This reflects how public policy in water management must consider the balance between water resources and community needs while maintaining ecosystems and ensuring water resource sustainability (Pouya et al., 2023; Valdovinos & Yañez Soria, 2024). As explained by the UN, participatory mechanisms and accountability will help address disparities in service provision and help policymakers focus on inequalities and underlying causes. We propose a universal approach that not only addresses inequality and sustainability (maintaining intergenerational equity), but also respects human rights to water and sanitation services. Appropriate governance actions, such as regulating and enforcing agreed standards, are essential to ensuring the overall quality of water bodies over time (Bantider et al., 2023). Pollution control will improve water quality in rivers and lakes and support ecosystem functions by reducing organic and mineral substances that can damage oxygen supplies (UN-Water, 2014).

On the other hand, water governance has diverse definitions, according to scientists. For example, Pahl-Wostl defines water governance as "the development and implementation of norms, principles, rules, incentives, informative tools, and infrastructure to promote behavioral change among actors at the global level in water governance" (Babuna et al., 2023). Wilson (2020) mentions several key features of water governance, such as "systemic perspective, governance focus on social actors, transparency discourse to access values and goals, and comprehensive perspective on water resource sustainability." Both approaches emphasize values, norms, principles, and goals in the context of water governance. Hjorth & Madani (2023), on the other hand, present a more political definition using a political sociology approach, viewing water governance as a domain of political struggle. From the various definitions of water governance, we can conclude that this concept involves the complexity of relationships between actors and various aspects, particularly multidimensional dimensions such as economic, social, political, and cultural. Multi-actor involvement, including the government, private sector, and society, is key in water resource management efforts.



Discussion

Water is an integral element of the entire development process, and the planning and implementation of activities in the water sector depend on the dynamics of the economy and other productive sectors (Shahvi et al., 2021). This context intersects the needs and interests of various parties, including the public, private sector, and community as stakeholders. Therefore, water management is under multidimensional pressure, requiring continuous consideration of changes occurring both internally and externally within the water sector that influence it (Hussein et al., 2020). The policy-making mechanism is the most important aspect of water resource management because it determines all government activities. The 1945 Constitution emphasizes in Article 33, paragraph 3, that the state controls and utilizes Earth, water, and the natural resources contained therein for the greatest prosperity of the people. This indicates that in Indonesia, water management is a significant part of public affairs managed by the government. The regulations and policies implemented in water management reflect the government's seriousness and commitment to ensuring the maximum welfare of the community (Rumihin et al., 2020, 2024).

An interesting development has occurred with the shift from government to governance, resulting in various new governance concepts. One example is the concept of excellent corporate governance, widely used by private companies as a performance indicator. Similarly, waste governance has become a concept in environmentally-based waste management, and water governance encompasses various aspects of water management. In 2014, UN Water formulated indicators of water governance that include several key aspects. First, institutional capacity involves effective water management institutions with rules agreed upon both nationally and internationally. Secondly, it encompasses the capability to develop and execute policies that are based on participation. Third, clear legal instruments and planned implementation strategies are available. Fourth, the benefits felt by all layers of society (UN, 2014).

To meet these indicators, UN Water has set several targets to strengthen water governance while addressing obstacles to implementing the governance paradigm. First, water management policy-making requires active public participation. Second, water distribution and sanitation services must meet community needs. Third, water management must be accountable and sustainable, reflecting a commitment to long-term sustainability. Fourth, we need to build a clear regulatory framework to direct and regulate water management policies. Fifth, it is critical to apply knowledge transfer and technological capability development in water management (Adams et al., 2020; Bayu et al., 2020).

To evaluate the implementation of water governance principles in a regional or national institution, van der Kerk introduced an evaluation method involving core elements of water governance. This approach involves three layers of a framework detailing essential aspects. First, at the content layer, it's crucial to evaluate the existence of clear water management strategies and policies, the sufficiency of relevant information, and the fulfillment of knowledge and skill requirements in water management. Second, at the institutional layer, the evaluation includes questions about the clear division of roles and responsibilities in water management, the availability of supporting facilities, the smooth operation of financial systems, and the relationship of water policies with other policies. Finally, the evaluation at the relational layer inquires about the active involvement of policymakers in water management decision-making, the transparency of the water management process, and the presence of sufficient trust to foster cooperation among related institutions. This approach aids in determining the effectiveness of water governance principles' implementation and establishes the foundation for essential enhancements.

The evaluation points prove to be valuable tools for assessing the implementation of water governance principles and measuring their effectiveness in water management. The evaluation also reveals various obstacles faced by water governance, as highlighted by Pahl-Wostl et al. (2020). These



obstacles include a lack of incentives from the government to cooperate for sustainable development, insufficient funding allocation strategies for priority programs, a lack of understanding among the government and community about environmentally focused sustainable development, low public trust in government operations, inadequate capacity and organizational constraints, and a lack of inclusive access to integrate local wisdom in water management with a sustainable development perspective. By understanding and addressing these obstacles, we can improve the effectiveness of water governance in water management.

It is possible to overcome these obstacles and successfully implement the water governance paradigm in wastewater management. The literature, particularly case studies on water management in California, USA, suggests several measures for enhancing good governance in water management. Firstly, the creation of effective water management policies hinges on the provision of abundant information and the involvement of numerous experts and resources, including facilities and funding. Second, we need to improve integration, coordination, and coherence at every level of government. Third, experts now take over environmental management tasks from the government, aiming to maximize public participation. Fourth, we need to enhance the water management structures and mechanisms to rebuild public trust. Fifth, improving the government's adaptive capacity is another important aspect of responding to the dynamics of water management (Jiménez et al., 2020). Public participation is a critical element in the water governance model. Therefore, multi-stakeholder or multi-actor elements in water management are essential, supported by the clear roles and functions of each actor within a collaborative water management framework. These steps can serve as the foundation for improving water governance effectiveness and achieving sustainable water management.

Essentially, water governance aims to achieve a balance between the supply and demand of water resources, which often leads to conflict, while still considering the sustainability of ecosystems and water resources. The approach taken in water governance includes principles of equitable distribution and ecosystem sustainability, as well as considering human rights to water and sanitation through public participation and management accountability. Water governance is very important in the context of wastewater management, with the main goal of involving wastewater management in the overall water cycle. This includes how to turn wastewater into a new raw water source and manage wastewater effectively to reduce pollution.

The importance of water governance is not only limited to the government's role as a service provider but also to the government's ability as a facilitator, mediator, and regulator, which opens up space for active public participation. We expect the government to act as a manager in wastewater management, ensuring the sustainability of water ecosystems and promoting sustainable development by taking environmental aspects into account. According to Di Vaio et al. (2021), water governance encompasses various political, social, economic, and administrative systems applied to develop and manage water resources and water distribution services at different levels of society. Therefore, this study scrutinizes the political, social, economic, and administrative mechanisms available for water development and management.

Hussein et al. (2020) provide an analytical framework for water governance consisting of inputs, processes, outputs, and outcomes. Inputs include laws and regulations, as well as existing programs. Processes describe the implementation of laws, regulations, and programs to achieve better environmental conditions. Outputs refer to the results of implementing laws and regulations, as well as several indicators that can measure program success. Outcomes refer to the long-term impacts of inputs, such as water quality. Although this framework primarily focuses on regulatory aspects, this study aims to identify a potential water governance model that is suitable for the supporting and inhibiting factors in Indonesia, taking into account the water governance principles as outlined by the United Nations.



In Indonesia, the implementation of water governance is likely to vary in each region. The empirical conditions of the foundational building of water governance, such as the strength of administration and water management organizations in each region, play a crucial role. Despite the long-standing implementation of regional autonomy, Indonesia continues to experience disparities in the performance and professionalism of local bureaucracies. Where water flow and territorial landscape conditions differ, systemic water laws also become a consideration, challenging the implementation of standard water laws. Financing systems and economic analysis of water management are also important factors, but not all regions have independence and comprehensive capabilities in this regard. Depending on the region's ability and political will, a systemic planning approach is also necessary to meet primary needs in each government program, particularly in achieving universal clean water access. Ultimately, not every Indonesian region has fully embraced stakeholder participation, especially when it comes to the private sector and active community involvement, particularly in urban and rural areas, to varying degrees.

CONCLUSION

Conclusion

This article discusses the concept of water governance development in various countries as a reference for effective and sustainable water management. The main focus of the research aligns with Sustainable Development Goal (SDG) No. 6, which emphasizes access to clean water and sanitation in Indonesia. The country faces unique challenges due to climate variations, namely the rainy and dry seasons, requiring adaptive water resource management to cope with changing climatic conditions. The research findings highlight the importance of collaboration, cooperation, and participation from the government, community, and private sector in implementing effective water governance. By adopting the governance paradigm, the main conclusion is the need for collective efforts to establish strong water resource management as the key to the success of clean water and sanitation programs across Indonesia by 2030. Recognizing the variations in institutional contexts and political cultures in each region of Indonesia, we cannot universally apply all water governance models. Nonetheless, this research emphasizes the importance of a holistic approach that integrates technical and political aspects into water management policies. This approach serves as the foundation for achieving sustainable access to clean water and sanitation. Therefore, the integration of technical and political dimensions is crucial to addressing water management challenges in Indonesia. This holistic approach provides a strong foundation for ensuring sustainable efforts towards inclusive access to clean water and sanitation, adapting to climate change, and reducing water-related disaster risks.

Recommendations

According to the research findings on the integration of technical and political aspects in water management through a holistic approach, several strategic recommendations can strengthen Indonesian public water policies.

First, enhance the capacity of water management institutions at both national and regional levels to ensure effective policy implementation. This involves improving competencies, allocating resources, and clarifying roles for each relevant institution. Second, improve the legal and regulatory framework related to water to create a solid foundation for water resource management. This includes drafting clearer regulations, increasing compliance, and enforcing strict sanctions. Third, foster cross-sector collaboration among the government, community, and private sector with a participatory approach to decision-making and efficient resource allocation.

Fourth, prioritize the implementation of climate-resilient water management strategies, including measures to address droughts and flood risks. Fifth, raise public awareness about the importance of



water management through educational campaigns. Public education can help to change water use behaviors and increase participation in water resource conservation efforts.

Sixth, develop water governance models that fit the local context of each Indonesian region, taking into account the cultural, geographical, and unique needs of each area. Finally, establish sustainable monitoring and evaluation systems to measure the effectiveness of water management policies, which are crucial for identifying weaknesses, adjusting policies, and ensuring the achievement of sustainability goals.

REFERENCES

- Abbas, F., Al-Naemi, S., Farooque, A. A., & Phillips, M. (2023). A Review on the Water Dimensions, Security, and Governance for Two Distinct Regions. *Water*, *15*(1), 208.
- Adams, E. A., Zulu, L., & Ouellette-Kray, Q. (2020). Community water governance for urban water security in the Global South: Status, lessons, and prospects. *Wiley Interdisciplinary Reviews: Water*, *7*(5), e1466.
- Akbar, M. F., Indar, N. I. N., & Abdullah, M. T. (2023). Analysis of Adaptive Governance: Overview of the Concept of Structure in Limboto Lake Management in Indonesia. *1st UMSurabaya Multidisciplinary International Conference 2021 (MICon 2021)*, 608–620.
- Annahar, N., Widianingsih, I., Muhtar, E. A., & Paskarina, C. (2023). The Road to Inclusive Decentralized Village Governance in Indonesia. *Sustainability*, *15*(11), 8616.
- Babuna, P., Yang, X., Tulcan, R. X. S., Dehui, B., Takase, M., Guba, B. Y., Han, C., Awudi, D. A., & Li, M. (2023). Modeling water inequality and water security: The role of water governance. *Journal of Environmental Management*, *326*, 116815.
- Bantider, A., Tadesse, B., Mersha, A. N., Zeleke, G., Alemayehu, T., Nagheeby, M., & Amezaga, J. (2023). Voices in shaping water governance: exploring discourses in the Central Rift Valley, Ethiopia. *Water*, *15*(4), 803.
- Bayu, T., Kim, H., & Oki, T. (2020). Water governance contribution to water and sanitation access equality in developing countries. *Water Resources Research*, *56*(4), e2019WR025330.
- Bitterman, P., Koliba, C., & Singer, A. (2023). *A network perspective on multi-scale water governance in the Lake Champlain Basin, Vermont*.
- Bryman, A. (2016). *Social research methods*. Oxford university press.
- Camargo, C. A. C., Castellet, E. B., Soler, D. G., & Torres, J. D. H. (2023). Protocol to Monitor Water Governance Based on Indicators for Rural Basins. *Ingeniería e Investigación*, *43*(1), 1.
- Dewi, U. N. M. (2024). Forced Migration in Southeast Asian: Policies and Migration Governance. *Proceedings of the Southeast Asian Conference on Migration and Development (SeaCMD 2023)*, *16*, 132.
- Di Vaio, A., Trujillo, L., D'Amore, G., & Palladino, R. (2021). Water governance models for meeting sustainable development Goals: A structured literature review. *Utilities Policy*, *72*, 101255.
- Gemedé, E. J., Senbeta, F., Zeleke, T., & Hagos, F. (2024). Assessment of Water Governance Practices in the Central Rift Valley of Ethiopia: Transparency, Accountability and Participation. *Water and Environmental Sustainability*, *4*(2), 40–51.
- Grigg, N. S. (2023). State government roles in water governance: Time for an upgrade. *Public Works Management & Policy*, *28*(2), 117–134.
- Handayani, W., Dewi, S. P., & Septiarani, B. (2023). Toward adaptive water governance: An examination on stakeholders engagement and interactions in Semarang City, Indonesia. *Environment, Development and Sustainability*, *25*(2), 1914–1943.



- Hellberg, S. (2023). What constitutes the social in (social) sustainability? Community, society, and equity in South African water governance. *Local Environment*, 28(4), 459–475.
- Hjorth, P., & Madani, K. (2023). Adaptive water management: on the need for using the post-WWII science in water governance. *Water Resources Management*, 37(6–7), 2247–2270.
- Hussein, H., Natta, A., Yehya, A. A. K., & Hamadna, B. (2020). Syrian refugees, water scarcity, and dynamic policies: how do the new refugee discourses impact water governance debates in Lebanon and Jordan? *Water*, 12(2), 325.
- Jiménez, A., Saikia, P., Giné, R., Avello, P., Leten, J., Liss Lymer, B., Schneider, K., & Ward, R. (2020). Unpacking water governance: A framework for practitioners. *Water*, 12(3), 827.
- Kusumastuti, C., Djajadi, R., & Rumihin, A. (2015). Evaluation of drainage channels capacity in Ambon City: a case study on Wai Batu Merah watershed flooding. *Procedia Engineering*, 125, 263–269.
- Pahl-Wostl, C., Knieper, C., Lukat, E., Meergans, F., Schoderer, M., Schütze, N., Schweigatz, D., Dombrowsky, I., Lenschow, A., & Stein, U. (2020). Enhancing the capacity of water governance to deal with complex management challenges: A framework of analysis. *Environmental Science & Policy*, 107, 23–35.
- Pambudi, A. S., & Kusumanto, T. (2023). Water Resources Governance in Indonesia Towards Environmental Sustainability Along with Social and Economic Development. In *Environmental Governance in Indonesia* (pp. 289–311). Springer International Publishing Cham.
- Pouya, M., Aazami, M., Halászová, K., & Azadi, H. (2023). Science mapping of water governance research in retrospect. *Water International*, 48(2), 217–239.
- Pradipta, I., Herdiansyah, H., & Putri, L. G. S. (2023). Balinese Way of Governing Water: A Social Survey on Water Governance. *Jurnal Penelitian Pendidikan IPA*, 9(7), 4983–4990.
- Rahmani, S., Murayama, T., Nishikizawa, S., & Roychansyah, M. S. (2023). Local Governance of Sustainability Transition in Community-Scale Solar Water Pumping Systems in Indonesia. In *Environmental Governance in Indonesia* (pp. 439–462). Springer International Publishing Cham.
- Rumihin, O. F., Makarim, C. A., & Pranoto, W. A. (2020). Dry Land Irrigation In Kandar, Tanimbar Islands Regency. *IOP Conference Series: Materials Science and Engineering*, 852(1), 12052.
- Rumihin, O. F., Makarim, C. A., & Pranoto, W. A. (2024). Analysis of Rainwater Harvesting Methods for Optimizing Small Island Areas: A Case Study in Selaru Island, Indonesia. *West Science Interdisciplinary Studies*, 2(01), 22–35.
- Sahide, M. A. K., Fisher, M. R., Hasfi, N., Mas'ud, E. I., Yunus, A., Faturachmat, F., Larekeng, S. H., & Maryudi, A. (2023). Navigating the Hidden Politics of Water Resource Bureaucracies in Indonesia: Mapping Issue-Elements and Alliances. *Hasanuddin Law Review*, 9(1), 57–87.
- Shahvi, S., Mellander, P.-E., Jordan, P., & Fenton, O. (2021). A Fuzzy Cognitive Map method for integrated and participatory water governance and indicators affecting drinking water supplies. *Science of the Total Environment*, 750, 142193.
- Suyeno, S., Sumartono, S., Haryono, B. S., & Amin, F. (2024). Water governance puzzle in Riau Province: uncovering key actors and interactions. *Water Policy*, 26(1), 60–78.
- Tyhotyholo, T., & Ncube, B. (2023). The rhetoric of community participation in urban South African water governance. *Utilities Policy*, 82, 101573.
- Valdovinos, J., & Yañez Soria, K. (2024). Urban water governance in Mexico during the COVID-19 pandemic. *International Journal of Water Resources Development*, 40(1), 84–104.
- Wei, J., Wei, Y., Tian, F., Xiong, Y., & Hu, H. (2023). Transition in the societal value and governance of water resources in Australia and China. *Humanities and Social Sciences Communications*, 10(1), 1–12.



- Wicaksono, A., Prihatin, P. S., Febrian, R. A., & Muliando, B. (2024). Sipongi System: Navigating and fostering collaboration in Indonesia. *Journal of Infrastructure, Policy, and Development*, 8(3).
- Widiarto, A. E., Fadli, M., Rahmawan, T. I., Putra, M. D., Al-Fatih, S., & Wibowo, A. M. (2023). The drafting of village regulations concerning the management of agricultural water resources. *Journal of Community Service and Empowerment*, 4(1), 18–24.
- Wilson, N. J. (2020). Querying water co-governance: Yukon First Nations and water governance in the context of modern land claim agreements. *Water Alternatives*, 13(1), 93–118.
- Wyborn, C. A., van Kerkhoff, L. E., Colloff, M. J., Alexandra, J., & Olsson, R. (2023). The politics of adaptive governance: water reform, climate change, and First Nations' justice in Australia's Murray-Darling Basin. *Ecology and Society*, 28(1).
- Yan, H. (2023). *Bibliometric Analysis on Socio-Technological Innovation in Water Governance under the High Water-Intensive Industry Perspective: A Case Based on the CDP Water Impact Index Report*. City University of Hong Kong.
- Yasmin, T., Farrelly, M. A., Rogers, B. C., Krause, S., & Lynch, I. (2023). A tale of two cities: evidence from the Global South on established versus emerging cities' approaches to adaptive and sustainable water governance. *Ecology and Society*, 28(1).





Published by:
Program Studi Ilmu Administrasi Negara
Fakultas Ilmu Sosial dan Ilmu Politik
Universitas Pattimura

ISSN 2985-637X (Print) ISSN 2985-6361 (Online)

ISSN 2985-637X ISSN 2985-6361

9 772985 637007 9 772985 636000