PUBLIC SERVICE INNOVATION IN RELIGIOUS CONTEXT: E-GOVERNMENT IMPLEMENTATION ANALYSIS OF INDONESIA'S INTEGRATED HAJJ INFORMATION SYSTEM

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Abstarct: Digital transformation of public services represents a critical advancement in modern governance, particularly in specialized religious contexts where traditional practices intersect with technological innovation. This study examines e-government implementation through Indonesia's Integrated Hajj Information and Computerization System (SISKOHAT) at the Ministry of Religious Affairs Office in Makassar City. SISKOHAT transforms manual hajj registration processes into automated systems, creating comprehensive pilgrim databases and enhancing religious service delivery efficiency. The research employs qualitative descriptive methodology, utilizing primary and secondary data collected through observation, interviews, documentation, and literature review. Analysis is grounded in George C. Edwards III's policy implementation theory, examining communication, resources, disposition, and bureaucratic structure variables. Findings reveal mixed outcomes across implementation dimensions. Communication effectiveness remains suboptimal with deficiencies in information clarity, transmission, and consistency. Resource analysis indicates adequate budget allocation covering operational costs and training, though human resource quantity remains insufficient despite good quality, and physical infrastructure shows capacity limitations. Disposition demonstrates positive implementer attitudes and commitment, though adaptability challenges persist regarding policy changes and system updates. Bureaucratic structure reveals existing Standard Operating Procedures with fragmentation management challenges. Results contribute to understanding public service innovation in religious contexts, highlighting e-government implementation complexities in specialized administrative domains. The study provides insights for enhancing digital transformation strategies in Indonesia's religious public service delivery, demonstrating both opportunities and challenges in modernizing traditional religious administration through technological solutions.

Keywords: e-Government, Digital Transformation, Public Service Innovation, Policy Implementation, Religious Administration.

INTRODUCTION

In the 21st century there has been a rapid development due to the emergence of globalization in Indonesia which is marked by the increasing application of information and communication technology and data processing in aspects of human life. This development has been accelerated significantly during the post-pandemic period, with Indonesia's digital economy projected to reach $146 billion by 2025, driven by rapid growth in artificial intelligence, fintech, and digital infrastructure (CRIF Indonesia, 2025). This development has been able to revolutionize human life, from usually doing something using traditional tools now using it with various technologies such as computer technology and so on. By 2023, Indonesia achieved a remarkable internet penetration rate of 77 percent with approximately 213 million people embracing the online world, demonstrating how technological advances provide enormous benefits for the welfare of society in this very modern era (OpenGov Asia, 2023). The use of computer technology which is currently increasingly widespread certainly also helps public service actors who act by referring to the information they have and make decisions in government, with e-government systems fundamentally transforming government service delivery to be

much faster, more reliable, and freer from bureaucratic problems (Nurhidayat, et al. 2024; Utama, et al. 2020), both administrative activities, services, information, and personnel data management that can support effectiveness and efficiency. Digitalization has become one of Indonesia's key strategies for accelerating the achievement of national development goals, specifically enhancing the welfare of the Indonesian people through integrated Electronic-Based Government System (SPBE) covering digitization of public services, poverty reduction, and increased investment (The Lowy Institute 2024).

The government's efforts in providing good service to the community are by utilizing technology and communication commonly referred to as e-Government. This is in line with Presidential Instruction No. 3 of 2003 concerning national policies and strategies on the development of e-Government, which is based on the needs of the community who want an accountable, transparent, effective and efficient government. Given the definition according to the World Bank in Indrajit (2006) that "electronic government refers to the use by government agencies of information technologies (such as Wide Area Networks, the Internet, and mobile computing) that have the ability to transform relations with citizens, businesses, and other arms of government." That means electronic government (e-Government) is related to the use of information technology (such as wide area networks, the internet and mobile computers) by government organizations that have the ability to form relationships with citizens, businesses, and other organizations in government. With e-Government, the wider community can access all government information and services through a website managed by the government.

Talking about government services to the community or what is commonly called public services is certainly inseparable from the concept that has been regulated by the constitution through Law Number 25 of 2009 concerning Public Services which states that the state is obliged to serve every citizen and resident to fulfill their basic needs rights and obligations within the framework of public services which are the mandate of the 1945 Republic of Indonesia Law and that building public trust in public services carried out by public service providers is an activity that must be carried out in line with the hopes and demands of all citizens and residents regarding the improvement of public services.

One of the services to the community that must be responded to by the government is the management of the implementation of the Hajj pilgrimage service which has experienced the development of an information system to adjust to the needs of prospective Hajj pilgrims, because every Muslim wants to achieve perfection in worship by carrying out the commands of Allah SWT. According to Law of the Republic of Indonesia No. 8 of 2019 concerning the implementation of the Hajj and Umrah pilgrimages, it is explained that the Hajj pilgrimage is the fifth pillar of Islam which must be carried out by every Muslim who is able both physically, mentally, spiritually, socially, and financially and once in a lifetime. The implementation of the Hajj and Umrah pilgrimages is the activity of planning, organizing, implementing, supervising, evaluating, and reporting the Hajj and Umrah pilgrimages, which aims to provide guidance, services, and protection for Hajj and Umrah pilgrims so that they can carry out their worship in accordance with the provisions of the sharia and realize independence and resilience in the implementation of the Hajj and Umrah pilgrimages.

Table 1: Hajj Quota Distribution by Regency/City in South Sulawesi Province (2024)

No.	Regency/City	Hajj Quota (People)
1	Makassar City	1,076
2	Bone Regency	709
3	Gowa Regency	570
4	Bulukumba	385
5	Wajo	384
6	Pinrang	340
7	Jeneponto	325
8	Maros	295
9	Pangkep	288
10	Luwu	259
11	Takalar	249
12	Sidrap	239
13	Soppeng	237
14	Sinjai	221
15	North Luwu	217
16	Enrekang	177

Source: Governor of South Sulawesi Decree No. 1579/2024, January 2, 2024
Despite the substantial quota allocation, the demand for hajj pilgrimage significantly exceeds the available slots, resulting in extensive waiting periods across the province.

Table 2: Hajj Waiting List Statistics (As of January 2, 2024)

Location	Waiting Period (Years)	Total Pilgrims in Queue
South Sulawesi Province	46	241,400
Makassar City	39	42,838

Source: South Sulawesi Ministry of Religion, January 2, 2024

This data reflects the challenges faced by prospective Hajj pilgrims in waiting for departure to the Holy Land and demonstrate the critical need for efficient registration systems like SISKOHAT to manage the substantial backlog and ensure transparent, organized processing of hajj applications.

The implementation of hajj and umrah pilgrimages has undergone significant technological transformation since the 1990s, when information services and hajj pilgrim data management were conducted manually, creating difficulties in rapid control and documentation processes. Recognizing the need for systematic improvement, the Indonesian Ministry of Religion developed the Integrated Hajj Information and Computerization System (SISKOHAT) to transition from manual registration systems to automated processes through technology utilization. The system evolved from simple computer-based operations in 1992 to SISKOHAT Gen-1, then Gen-2 which provided real-time transparency and accessibility across Indonesian regencies and cities, encompassing functions such as pilgrim database management, registration, BPIH payments, passport processing, portion number systems, flights, and pilgrim grouping. In 2016, the system was further enhanced to SISKOHAT Gen-2 Version 3, introducing device rejuvenation with two key applications: regular hajj registration system with simplified procedures and hajj cancellation system for direct processing at regency/city offices. Following the Minister of Religious Affairs Regulation Number 29 of 2015, the regular hajj registration process was streamlined from four stages to two stages, implementing biometric systems and utilizing SISKOHAT Gen-2 devices. However, field implementation reveals persistent challenges including employee discipline issues, limited physical infrastructure with only one SISKOHAT room, inadequate socialization reaching only direct visitors to the Makassar City Ministry of Religious Affairs Office, document discrepancies requiring multi-agency verification, limited public knowledge about SISKOHAT procedures, bureaucratic complexities, banking regulation unfamiliarity, geographical accessibility constraints, and insufficient human resource quality affecting overall hajj service delivery and SISKOHAT application system utilization.This research holds significant importance in the context of Indonesia's digital transformation agenda, particularly in religious public service delivery where traditional practices must harmoniously integrate with modern technological solutions. The study addresses a critical gap in understanding e-government implementation within specialized religious administrative contexts, where the unique challenges of serving diverse pilgrim populations require tailored digital solutions. Given the substantial hajj waiting lists exceeding 240,000 pilgrims in South Sulawesi Province alone, with waiting periods up to 46 years, efficient digital systems like SISKOHAT become essential for transparent, accountable, and effective hajj administration. This research contributes to the broader discourse on public service innovation by examining how Islamic religious institutions adapt to digital governance frameworks while maintaining their spiritual and cultural integrity.

The study identifies significant gaps when compared to previous research. First, (Inakefe et al 2024) analyzed e-government implementation in general municipal services but failed to address the unique complexities of religious service delivery, particularly the intersection of spiritual obligations with technological processes. Their focus on standard administrative procedures overlooked the specialized requirements of hajj registration systems and the cultural sensitivities involved in digitizing religious services. Second, (Mustafa, et al. 2024) examined digital transformation in Indonesian public institutions but primarily concentrated on economic and social services, neglecting the religious sector's distinct challenges such as managing decades-long waiting lists, spiritual preparation processes, and coordination with international religious authorities. Third, (Islam & Mohna 2025) investigated policy implementation in local government contexts but did not explore how traditional bureaucratic structures in religious institutions respond to digital modernization pressures. These studies lack comprehensive analysis of e-government implementation in religious contexts, creating a research void that this study addresses by examining SISKOHAT's implementation through Edwards III's four-dimensional framework, thereby contributing novel insights into digital governance within Indonesia's religious public service ecosystem.

METHODOLOGY

The basic type of research used in this study is qualitative research that aims to describe and reveal descriptive

data as one approach to generally understand the problems of E-Government in the integrated computerized hajj system (SISKOHAT) at the Ministry of Religion of Makassar City. This study has gone through two stages, namely the preparation stage (administrative management and research needs) and the implementation stage which includes collecting research data, data analysis, and writing journals. To obtain relevant, accurate, and accountable data, the author uses several data collection techniques, namely: observation, interviews, literature studies, and documentation. The data sources referred to in this study are regarding the process of obtaining the data and how to manage it. This study uses primary and secondary data sources. Primary data is obtained directly from informants through several data collection techniques, such as observation and conducting interviews with the objects to be studied, while secondary data is obtained through documents, notes, reports or official archives, and relevant literature to complete the primary research data.

Data analysis is the process of simplifying data into a form that is easier to read and interpret. The data obtained will be analyzed using qualitative data analysis methods. In qualitative data research, data management does not have to be done after the data is collected or data analysis is not absolutely done after data management is complete. The data obtained is then analyzed simultaneously with the data collection process, the analysis process carried out is a long process. Data from interviews and literature obtained are then recorded and collected so that they become a field note result.

RESULTS AND DISCUSSION

Communication

Communication related to policies implemented by the government is a very important element and has a key role in policy implementation. Without effective communication support, even though the formulated policy is very good, the results will be meaningless. Therefore, it is important to ensure a clear understanding between policy makers and implementers, so that the right communication strategy can be integrated to support efficient policy implementation.

Communication functions as a means to achieve program objectives. In order for a program to be implemented successfully, the implementing party, in this case the Ministry of Religion of Makassar City, needs to understand the steps that must be taken, and to clearly convey the goals and objectives of the policy to the target group.

The delivery aspect in public policy highlights how crucial it is to inform not only the implementers, but also the target groups and all stakeholders, both directly and indirectly. With effective communication, it is hoped that they will know the actions that need to be taken to prepare and implement policies in an efficient manner, so that the goals and objectives of the policy can be achieved as desired. The transmission dimension, as explained in Edwards III's theory (Subarsono, 2010), emphasizes that the success of implementing a policy or program depends on the implementer's ability to effectively convey the program to the target group. This aims to minimize the possibility of distortion in its implementation.

The results of the study showed that the socialization carried out by the Ministry of Religion of Makassar City, especially the Hajj and Umrah Organizer Section and travel agencies, still did not utilize various social media and print media optimally, such as Instagram, Facebook, and others. In addition, the socialization carried out by the Hajj and Umrah Organizer Section at the Makassar City Ministry of Religion Office was limited to direct interaction with the public who came to register for the Hajj portion or seek information related to the Hajj pilgrimage.

The clarity dimension in public policy refers to the need to convey information in a way that is clear and easy to understand by all parties involved, including implementers, target groups, and other stakeholders. This aims to ensure that each individual can understand the intent, purpose, and substance of the existing policy. With this clarity, it is hoped that all parties will know the steps that need to be taken and the preparations that must be made to ensure that the policy can be implemented effectively and efficiently. In addition, the clarity dimension also plays an important role in preventing confusion among implementers and other related parties. When information is conveyed well, each individual will have the same understanding of what is expected. This will facilitate better coordination in policy implementation, so that the goals and objectives that have been set can be achieved optimally. Clarity in policy communication is very important to support successful implementation, because without a clear understanding, the risk of errors in implementation will increase.

The results of the study showed that the clarity dimension reviewed from the delivery of information regarding the intent, purpose, targets and substance of the policy has been understood by the policy implementers, namely the SISKOHAT operator team of the Ministry of Religion of Makassar City. SISKOHAT plays an important role in Hajj services, from registration to departure. This system helps speed up, clarify, and make the management of hajj administration more accurate. However, clarity of information to pilgrims is still a challenge. However, this information has not been fully conveyed to the public. Some pilgrims are still

confused about departure schedules and other information. The dimension of clarity in communication, especially regarding the timeliness and completeness of information, needs to be improved so that pilgrims feel safer and better served. The Ministry of Religious Affairs needs to ensure that information is delivered accurately and on time to increase transparency and public trust in the system.

The consistency dimension emphasizes the importance of delivering clear and targeted information related to the policies being implemented, so that there is no confusion among policy implementers, the target community, and other interested parties. Ambiguity in communication can lead to misunderstandings and uncertainty, which can ultimately hinder the effectiveness of the implementation of the policy. Therefore, to ensure that the policy can be implemented properly and achieve the desired goals, it is very important to conduct structured and consistent socialization to all parties targeted by the policy.

To achieve this, communication regarding the policy must be carried out continuously and systematically. This means that information must be delivered routinely and in various forms, such as seminars, workshops, or social media, in order to reach a wider audience. The goal is to provide the target community with a deep understanding of the content and objectives of the policy. In this way, it is hoped that all parties can understand well what is expected of them and how they can contribute to the success of the policy implementation. Active involvement from the community will also be easier if they feel they are getting clear and consistent information.

The results of the study indicate that the consistency dimension when viewed from the strategy of the managers and implementers of Hajj and Umrah and SISKOHAT to facilitate communication of Policies to fellow implementers, where coordination between the Ministry of Religion (Kemenag) as a regulator as well as implementer and the travel party as implementer in the field has not been running optimally, because travel tends to move alone in providing services to prospective pilgrims. Then the difficulty of accessing information, especially for the elderly, and the lack of communication skills of guides at the Ministry of Religion who do not provide complete and detailed information, especially related to administrative requirements, so that prospective pilgrims have to go back and forth to take care of the requirements, feel confused, and spend unnecessary time and money. Furthermore, the implementation of the review for implementers who are inconsistent is carried out because it is uncertain and only chooses certain times.

Resources

Resource variables play a very crucial role in the implementation of public policy. According to George C. Edwards III, who views that even though the rules related to the policy are clearly and consistently formulated, and delivered accurately, the success of implementation still depends on the availability of adequate resources. If policy implementers do not have sufficient and qualified resources to carry out their duties, then the implementation of the policy tends not to run effectively.

The quality of human resources includes skills, dedication, professionalism, and competencies relevant to the policies being implemented. Meanwhile, quantity relates to how much manpower is available to reach all targeted groups. The quality of human resources greatly influences the effectiveness of policy implementation. If policy implementers have sufficient skills and knowledge, they will be better able to face challenges and respond to needs in the field. Their dedication and professionalism also play an important role in creating a productive and innovative work environment. On the other hand, if the number of human resources is insufficient to serve all target groups, then policy implementation will be hampered. This can cause dissatisfaction among the public and reduce trust in the government or institutions implementing the policy. Thus, the success of policy implementation depends not only on clear regulations, but also on the support of reliable and adequate human resources.

The results of this study confirm that Human Resources (HR) are an important element in supporting the smooth running of services in government institutions, especially in managing Hajj and Umrah registration through the SISKOHAT system. Currently, there are only three SISKOHAT operators tasked with handling various needs of prospective pilgrims, such as registration and checking Hajj portions. Although they have received prior training, the limited number of operators often results in a high workload, especially with the increasing number of prospective pilgrims every day. In addition, the delay factor of operators due to distance of residence and educational background that is not in accordance with technological needs is an additional challenge in providing optimal service. The operators hope for additional personnel to support the smooth running of their duties. Ideally, the number of operators is increased to five people so that the workload can be distributed more evenly and services to the community run faster and more efficiently. In addition, periodic advanced training is needed to improve the technical competence of operators, especially in mastering the fairly complex SISKOHAT system.

Budget resources play a vital role in ensuring that public policies can be implemented properly. The adequacy of capital or funds allocated for a policy greatly determines the success of its implementation. When the available budget is insufficient, various programs and activities planned to achieve policy objectives will be

hampered. This not only disrupts policy implementation, but can also reduce public trust in the government and responsible institutions. Edward III emphasized that limited budget resources have the potential to hinder policy effectiveness, so it is very important to ensure that fund allocations are carried out appropriately and adequately.

Furthermore, budget shortfalls can have a negative impact on the motivation and disposition of policy actors. When implementers feel that they do not have enough resources to do their jobs well, their enthusiasm and commitment to policy implementation tend to decrease. This creates a cycle where low financial support leads to a lack of effectiveness in implementation, which in turn worsens the perception of the success of the policy. Therefore, it is important for policy makers to seriously consider the budget resource aspect at every stage of planning and implementation so that the desired objectives can be achieved optimally.

The SISKOHAT Budget for the Ministry of Religion of Makassar City can be seen in the following table:

Name of goods	Amount	Unit price	Total Value of Goods
Lenovo Computers	2	8,130,000	16,260,000
Lenovo Laptops	1	7,000,000	7,000,000

Based on the results of the study, it shows that the budget resources to ensure the implementation of SISKOHAT have been sufficient in terms of quantity, where the allocation of financial resources is an important element in supporting the smooth running of hajj services. The funds allocated by the Hajj and Umrah Organization Section of the Makassar City Ministry of Religious Affairs Office cover various needs, such as operational costs, facility maintenance, officer training, and outreach activities to pilgrims. All of these allocations are carefully planned in the Budget Implementation List (DIPA), with the aim of ensuring that every stage of the hajj organization, from preparation to implementation, runs well and efficiently.

The results of this study confirm that effective and efficient budget management greatly affects the quality of hajj and umrah services. The procurement of these technological devices is expected to improve administrative performance, strengthen the information system, and provide a positive impact on services for prospective hajj and umrah pilgrims. With the support of adequate facilities, the Hajj and Umrah Organization Section can continue to contribute to providing the best service to the community.

Facility resources play a very important role in the implementation of public policy. According to Edward III, facilities include various means and infrastructure needed to support operational activities, such as buildings, land, and other equipment. The existence of adequate facility resources not only facilitates the process of delivering services to the community, but also contributes significantly to the effectiveness of policy implementation. Without the right facilities, efforts to achieve policy objectives will be hampered, and can even result in failure in implementation.

George C. Edward III emphasized that facility resources are one of the key factors influencing the success of policy implementation. When facilities are not available or inadequate, policy implementers will face great challenges in carrying out their duties. Therefore, it is important for the government and stakeholders to ensure that all necessary facility resources are available and in good condition. This will support implementers in providing quality public services and achieving the expected results of the policies that have been set.

The results of the study indicate that the availability of infrastructure to support the implementation of e-government in the Office of the Ministry of Religious Affairs of Makassar City is a SISKOHAT room with computer infrastructure, printers, scanners, cameras, finger machines and internet networks. However, the current SISKOHAT room has several limitations and potential for improvement. The Siskohat room can only accommodate one congregation for each data entry process, which has the potential to cause queues and inconvenience, especially when registration is busy.

Disposition

Disposition reflects the character and attitude of the policy implementer, including the commitment, skills, and democratic nature needed to achieve the objectives of policy implementation. In the context of the Ministry of Religious Affairs, the disposition shown by the leadership and all employees of the SISKOHAT team greatly influences the success of the implementation of the established policies. Their attitudes and commitments are not only influenced by their personal views on the policy, but also by how the policy impacts the interests of the organization and individuals. Therefore, understanding this disposition is important in assessing the extent to which the implementers accept, are neutral, or even reject the existing policy.

The involvement of the SISKOHAT Team in the implementation of the Ministry of Religious Affairs policy shows that the disposition of the implementer plays a major role in determining the direction and results of the policy. If team members have a good understanding and positive attitude towards the policy, then they tend to strive to carry out their duties well. Conversely, if there is resistance or dissatisfaction among the implementers, this can hinder the implementation process and reduce the effectiveness of the policy. Therefore, it is important for the Ministry of Religious Affairs to evaluate the disposition of employees and provide the necessary training

and support so that they can carry out their duties optimally and in accordance with the expectations that have been set.

The results of the study indicate that hajj and umrah services at the Ministry of Religion, especially through the implementation of the SISKOHAT system, are a calling of the heart that prioritizes the safety, comfort, and satisfaction of pilgrims. The head of the hajj and umrah section emphasized the importance of an honest and trustworthy attitude in carrying out duties, and is committed to avoiding extortion practices and ensuring that no party is harmed. SISKOHAT, as a system that changes the registration process from manual to automatic, has increased the efficiency of hajj data management. However, challenges such as policy changes and system updates require a proactive attitude and adaptability from operators. Good coordination between various parties, including the central Ministry of Religion, regional offices, and banks, is essential for a smooth process. The hope of improving professionalism, friendly attitudes, and responsiveness among officers is expected to maintain public trust and improve the quality of hajj and umrah services.

Bureaucratic Structure

Bureaucracy plays a central role in the implementation of various activities, both in the public and private sectors. As an institution that is often the driving force in policy implementation, bureaucracy is not only tied to government structures, but is also present in private organizations and other institutions. The bureaucratic structure includes various important aspects, such as the division of tasks and authorities, interactions between organizational units, and relationships with external entities. Thus, a deep understanding of the structure and function of the bureaucracy is essential to ensure that every activity can be carried out efficiently and effectively. According to Edward III, there are two main dimensions that must be considered in implementing policies through bureaucracy, namely Standard Operating Procedures (SOP) and fragmentation.

Edward III believes that Standard Operating Procedures (SOPs) can be a barrier to implementing policies that require new work methods. However, SOPs also offer many benefits. Organizations that have flexible procedures and targeted programs can more easily adjust their responsibilities thanks to SOPs. In this way, SOPs help eliminate unnecessary activities, focus on important things, and increase operational efficiency and reduce the risk of errors. In addition, SOPs ensure regulatory compliance and increase productivity by providing clear guidance to employees. Therefore, the effective implementation and management of SOPs is essential to achieving operational success in an organization.

The results of the study indicate that the Ministry of Religious Affairs of Makassar City does not have an independent Standard Operating Procedure (SOP), but rather refers to the SOP set by the Ministry of Religious Affairs of Gowa Regency in serving prospective hajj and umrah pilgrims. This SOP functions as a guide in various stages of service, including registration of prospective pilgrims, guidance on manasik, management of departures, and repatriation of pilgrims. At the registration stage, prospective pilgrims are required to fulfill a number of administrative requirements, such as submitting identity documents and proof of initial deposit of the Hajj Pilgrimage Management Fee (BPIH), with data management carried out through the Integrated Hajj Information and Computerization System (Siskohat) application. In addition, the SOP also regulates the procedure for canceling registration for prospective pilgrims who withdraw or die, which involves an administrative process and sending documents electronically. This reflects the commitment of the Ministry of Religious Affairs of Makassar City to provide structured and efficient services to pilgrims by following the established guidelines.

The fragmentation dimension shows that when the bureaucratic structure is divided into several parts, this can create a risk of errors in communication. Information or instructions given by policy implementers can be hampered, which in turn limits their ability to exercise certain authorities. On the other hand, to achieve success in implementing policies, solid cooperation between various parties is needed. Based on Edward III's view, the distribution of policy responsibilities among various entities must be accompanied by effective coordination so that there is no failure in policy implementation. Fragmentation in the distribution of tasks and responsibilities at the Ministry of Religion of Makassar City is one of the main challenges in implementing Hajj and Umrah services. The division of the bureaucratic structure into several parts can result in obstacles in communication between officers, so that the information and instructions given cannot be implemented optimally. This situation has the potential to slow down the administrative process and reduce the effectiveness of managing Hajj pilgrim data which is highly dependent on the accuracy and smooth flow of information.

In addition, the fragmentation of the distribution of tasks also affects the ability of policy implementers to carry out their functions fully, especially in handling the SISKOHAT application which functions as a data and administration management center. Discontinuity and lack of coordination between sections lead to potential errors in data input, handling technical problems, and responding to administrative constraints. Research shows that good coordination and open communication between parties are important to overcome this fragmentation so that the system can operate effectively and services to pilgrims are maintained. On the other hand, the success of SISKOHAT implementation is highly dependent on the synergy and cooperation between the

various parties involved, starting from officers in the hajj and umrah sections, system operators, to coordination with regional offices and external parties such as banks that receive hajj deposits. Management of distributed responsibilities must be accompanied by good coordination so that the goals of hajj and umrah services can be achieved without significant obstacles. Therefore, increasing the professionalism and proactive attitude of officers in dealing with system dynamics is the main key to minimizing the negative impact of bureaucratic fragmentation.

CONCLUSION

The implementation of e-government policy through the Integrated Hajj Information and Computerization System (SISKOHAT) at the Ministry of Religious Affairs Office in Makassar City demonstrates both significant achievements and persistent challenges when evaluated through George C. Edwards III's theoretical framework. The study reveals that while the system has successfully digitized hajj registration processes and improved administrative efficiency, several critical implementation gaps remain. Communication dimension shows inadequate utilization of social media and print media for socialization, with clarity issues persisting between implementers and pilgrims regarding departure schedules and administrative requirements. Resource constraints are evident in the limited number of SISKOHAT operators (only three personnel) handling increasing workloads, despite adequate budget allocation for technological infrastructure. The disposition of implementers reflects strong commitment and calling to serve pilgrims with integrity, though challenges arise from policy changes and system updates requiring continuous adaptation.

The bureaucratic structure dimension reveals significant fragmentation issues that impede optimal policy implementation. The absence of an independent Standard Operating Procedure (SOP) and reliance on Gowa Regency's guidelines, combined with communication barriers between various organizational units, creates coordination challenges that affect service delivery efficiency. Despite these structural limitations, the SISKOHAT system has fundamentally transformed hajj administration from manual to automated processes, demonstrating the potential of e-government initiatives in religious service delivery. To optimize implementation effectiveness, the Ministry of Religious Affairs must address communication strategies, increase human resource capacity, improve inter-departmental coordination, and develop context-specific SOPs. The success of SISKOHAT implementation ultimately depends on strengthening these four critical dimensions to ensure seamless, transparent, and efficient hajj services that meet the growing expectations of Indonesian pilgrims in the digital era.

REFERENCES

1. Affandi, Z. A. (2021). Effectiveness Of Integrated Hajj Information And Computerization System (Siskohat) In Organizing Hajj Worship At The Office Of The Ministry Of Religious Affairs In Pekanbaru City (Doctoral dissertation, Sultan Syarif Kasim State Islamic University of Riau).
2. Akbar, W. (2023). Implementation of Digides Application-Based Public Services (Digital Village) in Tanete Rilau District, Barru Regency (Doctoral dissertation, Hasanuddin University).
3. Ardiana, G. D., & Fatimah, S. (2021). Implementation of the integrated hajj information and computerization system (SISKOHAT) in special hajj registration at the regional office of the Ministry of Religion of Central Java Province in 2019. Journal of Da'wah Management, 7(1), 29-55.
4. Auliyaa, P., Hidayat, R., & Nababan, R. (2021). Implementation of e-government-based public services through ogan lopian. Performance: Journal of Economics and Management, 18(4), 502-512.
5. Berlian, A. P. (2023). Implementation of E-Government in Improving the Quality of Public Services at the Population and Civil Registration Service of South Aceh Regency (Doctoral dissertation, UIN Ar-Raniry Banda Aceh).
6. CRIF Indonesia. (2025). *Shaping Indonesia's Digital Future: 2025 and Beyond*. Retrieved from https://www.id.crifasia.com/resources/industry-insights/the-future-of-digital-indonesia-are-we-ready-to-embrace-the-new-ict-era/
7. Doni, F., & Lubis, S. (2019). The Effect of Computerization Systems on the Effectiveness of Employee Work at the Medan City Pratama Tax Service Office. Public Reform: Journal Of Public Administration, 5(1).
8. Febri Rohyani, E. K. A. (2021). Public Understanding of the Obligation to Perform the Hajj Pilgrimage (Study of the Tanjung Harapan Community, North Bengkulu Regency) (Doctoral dissertation, IAIN BENGKULU).
9. Hamim, R. N., Meidiana, A., Helmi, C., & Nurdin, N. (2024). The impact of e-government implementation on public satisfaction in public services in Sukajaya Village. Indonesian Journal of Public

Administration Review, 1(3), 16-16.

10. Inakefe, G. I., Bassey, V. U., & Amadi, J. O. (2024). Evaluation of the Policy and Institutional Implications of Digital Tools in E-Governance Reforms Implementation for Service Delivery in Cross River State Civil Service, Nigeria. SAGE Open, 14(4), 21582440241297047. https://doi.org/10.1177/21582440241297047

11. Islam, S., & Mohna, H. A. (2025). Comparative Analysis Of Political Economy Models In South Asia And Their Impact On Public Sector Reform. Review of Applied Science and Technology, 3(01), 01-39. https://doi.org/10.63125/b34gdt94

12. Kristian, I., Nuradhawati, R., & Ristala, H. (2024). The Role of E-Government in Increasing Public Transparency in Indonesia (Case Study of Bandung Regency Government). Jurnal Academia Praja: Jurnal Magister Ilmu Pemerintahan, 7(2), 252-263.

13. Mauludi, A. F. (2014). Effectiveness of SISKOHAT Use in Hajj Services at the Directorate General of Hajj and Umrah Organization, Ministry of Religion of the Republic of Indonesia" (Bachelor's thesis, Faculty of Da'wah and Communication Sciences, Syarif Hidayatullah State Islamic University, Jakarta).

14. Maydianto, M. (2021). Design and Construction of Point of Sale Information System with Codeigniter Framework on CV Powershop (Doctoral dissertation, Information Systems Study Program).

15. Muliawaty, L., & Hendryawan, S. (2020). The role of e-government in public services (case study: Sumedang Regency public service mall). Policy: Journal of Administrative Sciences, 11(2), 45-57.

16. Mustafa, A. H., Yusuf, S. N. S., Zakaria, Y., Jamaludin, A., Omar, M., & Mazlan, M. N. H. (2024). The significance of strategic transformation in influencing the future dynamics of Islamic religious councils: An in-depth examination. Journal of Emerging Economies and Islamic Research, 12(1), 856-856. https://doi.org/10.24191/jeeir.v12i1.856

17. Nurhidayat, et al. (2024). Evaluation of the Challenges of E-Government Implementation: Analysis of the E-Government Development Index in Indonesia. *Jurnal Manajemen Pelayanan Publik*. Retrieved from https://jurnal.unpad.ac.id/jmpp/article/view/52759

18. OpenGov Asia. (2023). Indonesia Enhances Welfare with Digital Transformation. Retrieved from https://opengovasia.com/indonesia-enhances-welfare-with-digital-transformation/

19. Rifdan, H., Sakawati, H., & Yamin, M. N. (2024). Analysis of E-Government Implementation in Improving the Quality of Public Services in Tallo District, Makassar City. Journal of Governance and Politics (JGP), 4(1), 49-61.

20. Robert, T. (2024). E-Government Implementation In The Organizational Division Of The Regional Secretariat Of Pekanbaru City. Journal of Social Education and Humanities, 3(2), 488-506.

21. Saphira, R. W. (2022). Analysis of the Regular Hajj Pilgrim Portion Number Transfer Service System at the Regional Office of the Ministry of Religious Affairs of DKI Jakarta Province (Bachelor's thesis, Faculty of Da'wah and Communication Sciences, UIN Syarif Hidayatullah Jakarta).

22. Sari, M. (2021). Implementation Of Hajj Pilgrimage Services Through The Integrated Hajj Information And Computerization System (Siskohat) At The Ministry Of Religious Affairs Of Siak Sri Indrapura (Doctoral Dissertation, Sultan Syarif Kasim State Islamic University Of Riau).

23. The Lowy Institute. (2024). *Digitising the Social Safety Net: Lessons from Indonesia*. Retrieved from https://www.lowyinstitute.org/publications/digitising-social-safety-net-lessons-indonesia

24. U.S. Trade Development Agency. (2024). *Indonesia Digital Transformation Market Analysis*. Retrieved from https://www.trade.gov/market-intelligence/indonesia-digital-transformation

25. Untari, F. (2018). Implementation of e-Government in Public Services Through the Online Tax System (e-tax) (Study at the Malang City Regional Tax Service Agency) (Doctoral dissertation, Brawijaya University).

26. Utama, et al. (2020). The Implementation of E-Government in Indonesia. *International Journal of Research in Business & Social Science*, 9(7), 190-196.

27. https://doi.org/10.1177/00131644231163813

28. Gouveia, V. V., Martínez, E., Meira, M. & Milfont, T. L. (2001). The universal structure and content of human values: Confirmatory factor analysis of Schwartz's typology. *Studies in Psychology*, *6*(2), 133-

29. 142. https://doi.org/10.1590/S1413-294X2001000200002

30. Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., &Tatham, R. L. (2017). *Multivariate data analysis*. (7th ed.). Pearson.

31. Hounkpatin, H. O., Boyce, C. J., Dunn, G., & Wood, A. M. (2017). Modeling bivariate change in individual differences: Prospective associations between personality and life satisfaction. *Journal of Personality and Social Psychology*, *115*(6), e12-e29. https://doi.org/10.1037/pspp0000161

32. Jacky, C. K., Kwan, L. Y. J, & Chan, W. (2022). A note on evaluating the moderated mediation effect.

33. *Structural Equation Modeling: A Multidisciplinary Journal*, *31(*2), 340-356.

https://doi.org/10.1080/10705511.2023.2201396

34. Kelcey, B., Bai, F., Xie, Y., & Cox, K. (2020). Micro-macro and macro-micro effect estimation in small scale latent variable models with Croon's method. *TPM – Testing, Psychometrics, Methodology in Applied Psychology*, *27*(3), 477-499. https://doi.org/10.4473/TPM27.3.9

35. Maia, J. L., & Lima, M. A. M. (2021). Structural equation modeling and selection tests – Case of the entrance exam of the State University of Ceará. *Essay: Assessment and Public Policies in Education*, *29*(112), 804-827. https://doi.org/10.1590/S0104-403620210002902107

36. Melhado, F., & Rabot, J. M. (2021). Sentiment analysis: From psychometrics to psychopolitics.

37. *Comunicação e Sociedade*, *39*, 101-118. https://doi.org/10.17231/comsoc.39(2021).2797

38. Montoya, A. K. (2024). Conditional process analysis for two-instance repeated-measures designs. *Psycho- logical Methods.* Advance online publication. https://doi.org/10.1037/met0000715

39. Montoya, A. K, & Hayes, A. F. (2017). Two-condition within-participant statistical mediation analysis: A path-analytic framework. *Psychological Methods*, *22*(1), 6-27. https://doi.org/10.1037/met0000086

40. Norget, J., & Mayer, A. (2022). Block-wise model fit for structural equation models with experience sampling data. *Zeitschrift für Psychologie*, *230*(1), 47-59. https://doi.org/10.1027/2151-2604/a000482

41. Page, M. J., Mckenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., ... Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *Systematic Reviews*, *10*(1), Article 89. https://doi.org/10.1186/s13643-021-01626-4

42. Pasquali, L. (2017). *Psychometrics: Test theory in psychology and education*. Vozes. https://pt.scribd.com/doc/298484657/PASQUALI-L-Psicometria-Teoria-Dos-Testes-Na-Psicologia-e- Na-Educacao-PetropolisRJ-Vozes-2004-p-158-19

43. Pek, J., & Wu, H. (2018). Parameter uncertainty in structural equation models: Confidence sets and fungible estimates. *Psychological Methods*, *23*(4), 635-653. https://doi.org/10.1037/met0000163

44. Pilati, R., & Abbad, G. (2005). Análise fatorial confirmatória da escala de impacto do treinamento no trabalho [Confirmatory factor analysis of the training impact scale at work]. *Psicologia: Teoria e Pesquisa*, *21*(1), 43-51.

45. https://doi.org/10.1590/S0102-37722005000100007

46. Pilati, R., & Laros, J. A. (2007). Modelos de equações estruturais em psicologia: Conceitos e aplicações [Structural equation models in psychology: Concepts and applications]. *Psicologia: Teoria e Pesquisa, 23*(2), 205-216.

47. https://doi.org/10.1590/S0102-37722007000200011

48. Raju, N. S., Laffitte, L. J., & Byrne, B. M. (2002). Measurement equivalence: A comparison of methods based on confirmatory factor analysis and item response theory. *Journal of Applied Psychology*, *87*(3), 517-529. https://doi.org/10.1037/0021-9010.87.3.517

49. Rogers, P. (2022). Melhores práticas para sua análise fatorial exploratória: tutorial no factor [Best practices for your exploratory factor analysis: A tutorial in factor]. *Revista de Administração Contemporânea*, *26*(6), Article e-210085.

50. https://doi.org/10.1590/1982-7849rac2022210085.por

51. Silva, M. A. da, Arqimon, I. I. de L., & Wendtd, G. W. (2024). Métodos de correção de testes estatísticos em modelagem de Eequações estruturais [Correction methods for statistical tests in structural equation modeling]. *Avaliação Psicológica*, *23*(1), 109-120. https://doi.org/10.15689/ap.2024.2301.18031.11

52. Silva-Costa, A., Rotenberg, L., Baltar, V. T., Coeli, C. M., Fonseca, M. de J. M. da, Melo, E. C., & Gripe,

53. R. H. (2019). Structural equation modeling of associations between night work and glycemic levels. *Archives of Endocrinology and Metabolism*, *63*(5), 487-494.

54. https://doi.org/10.20945/2359-3997000000147

55. Sterner, P., & Goretzko, D. (2023). Exploratory factor analysis trees: Evaluating measurement invariance between multiple covariates. *Structural Equation Modeling: A Multidisciplinary Journal*, *30*(6), 871-886. https://doi.org/10.1080/10705511.2023.2188573