



Analysis of the Application of Management Information Systems in Improving the Quality of Public Services

Taufik Hidayatulloh¹, Sri Lestari², Nabila Adzra Nazhira³, Riska Pramudiana⁴, Naili Ni'matul
Maula⁵, Agni Al Izhati⁶, Maela Atqiya⁷, Ayunda Okta Fiani⁸

^{1,2,3,4,5,6,7,8} UIN K.H. Abdurrahman Wahid Pekalongan, Pekalongan, Indonesia

e-mail: taufik.hidayatulloh24067@mhs.uingusdur.ac.id¹, sri.lestari24091@mhs.uingusdur.ac.id²,
nabila.adzra.nazhira24092@mhs.uingusdur.ac.id³, riska.pramudiana24095@mhs.uingusdur.ac.id⁴,
naili.nimatul.maula24104@mhs.uingusdur.ac.id⁵, agni.al.izhati24109@mhs.uingusdur.ac.id⁶,
maela.atqiya24120@mhs.uingusdur.ac.id⁷, ayunda.okta.fiani24122@mhs.uingusdur.ac.id⁸

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ABSTRACT

This study aims to examine the implementation of Management Information Systems (MIS) to improve the quality of public services. The adoption of digital systems by the government is driven by the rapid advancement of information technology, which is expected to increase efficiency, transparency, and accountability in services. In its analysis, this study applies a systematic literature review method, referring to Edwards III's policy implementation theory, which encompasses aspects of communication, resources, disposition, and bureaucratic structure. The main findings reveal that before the implementation of the MIS, public services still relied on manual processes, resulting in delays, high error rates, and low overall efficiency. Post-implementation of the MIS, there was a significant improvement in service quality, particularly in aspects of process speed, data accuracy, ease of access, and transparency. However, the success of the MIS is highly influenced by the readiness of the technological infrastructure, human resource capabilities, and organizational adaptability. Therefore, achieving optimal public services requires an integrated strategy that integrates technology, human resource development, and strong policy support.

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ABSTRACT

Studi ini bertujuan untuk meneliti implementasi Sistem Informasi Manajemen (SIA) untuk meningkatkan kualitas pelayanan publik. Adopsi sistem digital oleh pemerintah didorong oleh kemajuan pesat teknologi informasi, yang diharapkan dapat meningkatkan efisiensi, transparansi, dan akuntabilitas dalam pelayanan. Dalam analisisnya, studi ini menerapkan metode tinjauan pustaka sistematis, merujuk pada teori implementasi kebijakan Edwards III, yang mencakup aspek komunikasi, sumber daya, disposisi, dan struktur birokrasi. Temuan utama menunjukkan bahwa sebelum implementasi SIA, pelayanan publik masih bergantung pada proses manual, yang mengakibatkan keterlambatan, tingkat kesalahan yang tinggi, dan efisiensi keseluruhan yang rendah. Pasca-implementasi SIA, terjadi peningkatan yang signifikan dalam kualitas pelayanan, khususnya dalam aspek kecepatan proses, akurasi data, kemudahan akses, dan transparansi. Namun, keberhasilan SIA sangat dipengaruhi oleh kesiapan infrastruktur teknologi, kemampuan sumber daya manusia, dan adaptabilitas organisasi. Oleh karena itu, pencapaian pelayanan publik yang optimal membutuhkan strategi terpadu yang



mengintegrasikan teknologi, pengembangan sumber daya manusia, dan dukungan kebijakan yang kuat.

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Corresponding Author:

Riska Pramudiana

UIN K.H. Abdurrahman Wahid Pekalongan

Email: riska.pramudiana24095@mhs.uingusdur.ac.id

INTRODUCTION

The rapid advancement of information technology has transformed many aspects of daily life, including the provision of public services. The government, as the primary authority responsible for these services, is faced with the challenge of providing more responsive, honest, and cost-effective services, given the increasingly diverse demands of the public. This is where the implementation of a Management Information System (MIS) emerges as a strategic step to optimize the quality of public services. Essentially, a Management Information System (MIS) is an integrated system involving various components to collect, process, store, and present data into relevant information for decision-making. In government organizations, this type of information serves as a crucial foundation for formulating policies and implementing programs. Therefore, utilizing information technology through a Management Information System (MIS) is no longer an option but an absolute necessity.

Before the implementation of a Management Information System (MIS), public services largely relied on manual methods, which often led to problems such as lengthy processes, frequent data errors, and a lack of efficiency and transparency. As a result, public satisfaction with government services tended to be low. Along with technological evolution, the government has begun implementing an e-government approach to digitize services and improve overall quality.

The adoption of MIS is expected to improve bureaucratic effectiveness and efficiency, while strengthening transparency and accountability. However, successful implementation does not solely depend on technological aspects; supporting factors such as infrastructure readiness, human resource quality, and organizational governance also play a significant role. Therefore, an in-depth analysis is needed to determine the extent to which MIS can improve the quality of public services.

METHOD

This study employed a Systematic Literature Review (SLR) method with a descriptive qualitative approach. This method was chosen to identify, review, and synthesize various research findings related to the implementation of Management Information Systems (MIS) in improving the quality of public services. The data used were secondary data obtained from scientific articles, national and international journals, books, and other relevant reference sources published in recent years.



RESULT AND DISCUSSION

Result

Based on a review of various literature discussing the implementation of Management Information Systems (MIS) in public services, several key findings were obtained. The implementation of MIS has been proven to improve the quality of public services by increasing the efficiency of service processes, the accuracy of data management, information transparency, and facilitating public access to services. Prior to the implementation of MIS, public services were dominated by manual processes, resulting in slow service delivery, high rates of administrative errors, and low operational efficiency. Following the implementation of MIS, various studies have shown an increase in service speed, better coordination between work units, and increased public satisfaction with public services.

While MIS implementation has had positive impacts, it still faces several challenges, including limited technological infrastructure, uneven human resource competency, and organizational resistance to change. Therefore, the success of MIS implementation is determined not only by technological sophistication but also by organizational readiness, policy support, and increased human resource capacity.

Discussion

1. Implementation of management information systems in public services

System information management (SIM) basically is set interconnected elements related tightly, so that form One unity intact in order to integrate, process, and save data so that it can be utilized in the process of taking decision managerial. In context organization public like government, obligations For gather various data and process it become information becomes absolute thing, because information the functioning as base consideration main in determination and implementation policy (Laia et al., 2022).

The development of information technology, inseparable from the current of globalization, has become an integral part of modern society today. This has given rise to strong public demands for the government, as the provider of public services, to be more transparent, effective, and efficient in carrying out its functions, while also facilitating access to government information. As a result, the government is encouraged to implement the concept of good governance. Particularly in order to realize public services based on good governance, the government is faced with the necessity to adapt to technological advances to avoid being left behind.

Satisfaction public be one of gauge measuring main success service public . Currently, progress technology such information and communication fast push bureaucracy service public For Keep going innovate, so that the services provided more effective, efficient, and capable fulfil hope society. On the other hand, society as recipient benefit service participate form perception or image government in a way as a whole; they entitled convey aspirations as well as criticism related quality service public the.

Service at its core refers to various activities that provide benefit for something group or organization, with objective create satisfaction although No produce product real physical. Every individuals basically need service this, so that Can it is said that service truly attached close in life man even difficult separated from him. Service involving effort from party giver service For fulfil need public or interested party for organization, according to with provision the basis and procedures that have been determined. In special, service public defined as series activities carried out by the apparatus state bureaucracy to fulfill demands public based on standard applicable services. This is in line with right public For get service excellent and quality government high (Rahmadi & Q, 2023).

As one of the function main government, services public put government in position must fulfil various need citizens. Service Alone can understood as action or effort provided by one



party to party others, which are of a nature intangible or No tangible in a way physical, as well as No cause right ownership on something goods. Services play a role in provide or manage what is needed someone, and as A products, services own characteristics unique that distinguishes it from goods or product others (Laia et al., 2022). According to Edwards III approach, success implementation policy public can measured through four variables main, namely communication, resources power, disposition, and structure bureaucracy. Findings and analysis from study this will also described in a way details in the section following :

a. Communication

According to Edwards, communication is the most crucial element that is mandatory noticed in the implementation process policy. Goals and target from policy the need delivered with clear to target group. so that they truly understand the intent and direction. The reason is, if implementation policy deviate from objective beginning, thing That precisely will trigger distortion in implementation.

b. Resource

Source Power play role key in determine success implementation policy; without adequate availability, implementation policy tend experience obstacle serious. Source Power This Alone divided into two types main, namely source Power finance and resources Power human. As good as whatever the plan A policy, if source Power his supporters limited, then achievement the goal will disturbed, even potential total failure.

c. Position

Character, attitude, and the will of the implementers as actor main in implementation policies have a big impact level their success. They No just handle aspect technical, but also must be capable translate policy become steps concrete in the field. Therefore , sincerity, commitment, and integrity in Work become factors that are not replaced. Attitude implementer either positive like a sense of responsibility responsible and disciplined, or negative like attitude indifferent not indifferent will impact straight to quality implementation policy in a way overall. This is all related close with ability Work they as well as motivation or Spirit For operate assignment. With so, success implementation policy in the end depends on quality character, attitude and willingness of the implementers.

d. Structure Bureaucracy

Structure bureaucracy in government own influence big to effectiveness implementation policy. The policy that is drawn up through the planning process basically aim For reach target certain, complete problems faced society, as well as guard image government. Based on Edwards III theory, implementation policies that are complicated need collaboration from various parties. If the structure bureaucracy No support implementation policy, then matter That precisely will cause ineffectiveness and obstruction smoothness the process (Darsono, 2021).

Quality of Public Services

System Information Management (SIM) becomes infrastructure technical main in e-Government development and System Government Electronic Based (SPBE). As foundation Main, SIM manages operational data and managerial, which ultimately support organization service public digitally based more effective and efficient.

- a. e-Government refers to use technology information to improve quality service public at a time realizing governance more government transparent, accountable, and involving participation public.
- b. SPBE is policy national focused on integration service government through approach digital, with architecture mutually compatible standards connected inter-agency (Alfarizki, Haris, Syaputra, et al., 2025).



2. Service quality before and after implementing management information systems

Before the implementation of Management Information Systems (MIS), service quality was generally limited by reliance on manual methods. This slowed down the service process, given that data management was carried out conventionally, such as manually recording documents or utilizing simple, disconnected applications. Consequently, the risk of human error increased, both in the recording and processing stages of data, which in turn reduced the accuracy of information delivered to customers. Furthermore, the distribution of data across various organizational units without an integrated basis made it difficult to access information quickly and efficiently. This situation resulted in less than optimal service for customers, reflected in delays in service times, data inconsistencies, and low levels of user satisfaction (Alfarizki et al., 2025b).

a) Service Quality Before Implementing a Management Information System

Service quality plays a crucial role in shaping customer satisfaction levels in an organization. Before the implementation of a Management Information System (MIS), service processes relied on manual methods, which tended to be less able to provide fast, accurate, and efficient service. As a result, users often perceived low service quality.

Generally, this manual service was characterized by data recording using conventional methods, such as paper documents and direct archive searches. These practices slowed down the service process, requiring more time to process and locate data. Various studies have shown that without the support of a computer-based information system, data input and retrieval activities become complicated and significantly time-consuming (Sari, 2011). As a result, customers often face delays in getting the services they need.

Furthermore, before the implementation of MIS, the rate of service errors due to human error was relatively high. Errors in data recording, processing, or storage often occurred due to the absence of automated validation mechanisms. This situation not only compromised the accuracy of the information produced but also potentially undermined user trust in the organization.

From an efficiency perspective, a manual service approach required significantly greater resource allocation, both in time and manpower. The cumbersome and poorly integrated process resulted in less than optimal cross-departmental coordination. Related studies also confirm that organizations without information systems often suffer from various data management issues, including long queues, slow information processing, and overall service delays (Putra & Siswanto, n.d.).

Another limitation that emerged was the lack of transparency and easy access to information. Customers found it difficult to monitor service progress directly and in real time, forcing them to resort to manual checks. This situation clearly depressed customer satisfaction, given that the service felt impractical and slow to respond to needs.

Within the servqual service quality framework, the pre-implementation MIS situation was far from ideal. This was evident in the relatively low levels of responsiveness, reliability, and efficiency. Studies on information system effectiveness revealed striking differences in service quality before and after implementation, with the earlier phase generally showing weaker service performance (Nuzulita & Mudjiumami, 2023).

Therefore, it can be concluded that service quality before the implementation of a Management Information System was still plagued by various obstacles, such as slow processes, high error rates, low operational efficiency, and minimal transparency. This situation is precisely the primary reason for organizations to quickly adopt information technology to improve overall service quality.

b) Service Quality after Implementing a Management Information System

The implementation of a Management Information System (MIS) has significantly improved the quality of public services, particularly in terms of speed, accuracy, and



transparency. By automating previously manual procedures, the MIS has shortened service durations while reducing the risk of administrative errors. Furthermore, the system's data integration capabilities facilitate the government's ability to provide services more adaptive to the changing needs of the public. Consequently, the satisfaction level of public service users, namely the public, has significantly increased (Alfarizki et al., 2025b).

Following the implementation of the Management Information System (MIS), the quality of public services has significantly improved, particularly in terms of accessibility and ease of access. Through digital platforms, the public can now access various services anytime and from any location, without the need for a physical presence at a service office. This situation perfectly aligns with the demands of the digital era, where the public tends to expect practical, fast, and efficient services. Furthermore, the use of information technology also strengthens communication between the government and the public by providing more transparent and real-time data (Alfarizki et al., 2025a).

The implementation of a Management Information System (MIS) has improved public service standards by creating more structured and well-documented processes. Based on case studies in local government agencies, the MIS has successfully established a standardized service system, where each procedural step follows a clear flow and is fully accountable. With this approach, service quality improvements extend beyond speed to consistency and accountability in public service delivery (Haiqal & Mentari, 2026).

Furthermore, system integration within the MIS contributes to improved post-implementation service quality by strengthening coordination between work units more effectively. This system unifies various divisions within the organization, thus avoiding the fragmentation that often occurred previously. Consequently, decision-making is faster and more accurate thanks to the availability of integrated, real-time data. Ultimately, this results in improved operational efficiency and increasingly superior service output quality for the public. However, improvements in service quality following MIS implementation continue to face several key challenges, including limited technological infrastructure, inadequate human resource competency, and resistance to organizational change. Various studies have shown that, even when the system has been implemented smoothly, intensive training and user capacity building are still essential to maximize its potential. Without such supporting efforts, achieving optimal service quality is difficult to achieve (Wigiyantini et al., 2025).

Overall, the implementation of the Management Information System (MIS) has driven improvements in the quality of public services, including efficiency, effectiveness, transparency, and public satisfaction. This system has proven to be crucial in contemporary bureaucratic reform, particularly in developing digital-based services that are focused on public needs. Therefore, efforts to optimize the MIS must continue to be intensified through technological development, human resource enhancement, and appropriate supporting policies to ensure the sustainable development of public service quality (Maksum & Firdaus, 2024).

A critical analysis of the implementation of Management Information Systems (MIS) reveals that its primary advantage is its ability to improve the efficiency and effectiveness of public services. With MIS, service processes are faster, bureaucratic red tape is reduced, and human error is significantly minimized. Furthermore, transparency is enhanced by the public's open access to information, which in turn reduces the risk of corruption and maladministration. However, MIS's shortcomings should not be overlooked, such as its heavy reliance on technology, the potential for system disruptions, and the high investment costs for development and maintenance.

An additional advantage of a Management Information System (MIS) lies in its role in improving decision-making quality thanks to the accurate and up-to-date data provided in real time. Through comprehensive system integration, organizational leaders can easily monitor service performance and conduct regular evaluations. However, one frequent shortcoming is



the low level of human resource competency in operating this system. Some employees lack sufficient digital skills, resulting in suboptimal MIS utilization. This situation underscores that the success of MIS implementation is not solely determined by technology, but also by the readiness of human resources.

3. Obstacles in implementing management information systems in the public sector

Based on the barriers explained above, it is necessary to implement strategic solutions that focus not only on technology but also on human resources and organizational readiness. One of the main solutions is strengthening the digital competence of government employees. According to a study published in the *Jurnal Manajemen Pelayanan Publik* (Lestari & Hadijah, 2026), the level of digital competence among civil servants is still uneven, which results in suboptimal use of digital systems and slow adaptation to technological developments. Therefore, improving digital skills through training and continuous learning is essential to ensure the effective implementation of MIS.

In addition, employee engagement plays a crucial role in supporting digital transformation. The study highlights that low employee involvement can lead to weak motivation and resistance to change, while high engagement encourages employees to actively participate, adapt more quickly, and contribute to service innovation. This indicates that employee engagement is not only a supporting factor but also a key driver of successful system implementation. Furthermore, the integration of digital competence and employee engagement has been proven to significantly improve public service performance. Organizations that successfully combine these two aspects tend to deliver faster, more accurate, and more responsive services. Thus, strengthening human resource capacity and fostering employee involvement are strategic steps in overcoming MIS implementation barriers in the public sector (Manajemen et al., 2026).

Furthermore, evidence from the implementation of digital public services in Indonesia suggests that the effectiveness of Management Information Systems (MIS) is influenced not only by technological advancements but also by organizational preparedness and public involvement. The case of the J-Lahbako application in Jember Regency illustrates that digital innovation can enhance efficiency, broaden service access, and promote inclusivity, particularly in rural areas (Mayasiana & Asmuni, 2026). Nevertheless, the long-term success of such initiatives relies on the alignment between institutional capacity, technological support, and user acceptance. Therefore, a comprehensive and integrated approach is required to ensure sustainable MIS implementation (Manajemen & Publik, 2026).

Concerns about increased workloads and a lack of understanding of the long-term benefits of management information systems. Based on this description, it can be understood that the supporting and inhibiting factors for the implementation of management information systems are interrelated and influence the level of implementation success. Efforts to optimize the implementation of management information systems in local government agencies require a comprehensive approach that includes strengthening human resources. The Impact of Management Information System Implementation on Performance Effectiveness and Public Services.

The implementation of management information systems in local government agencies has a significant impact on the effectiveness of organizational performance when the system is utilized consistently and in an integrated manner. Management information systems enable administrative processes to run more quickly and in a structured manner, reducing reliance on manual procedures that can potentially lead to delays and recording errors. This efficiency has a direct impact on increased employee productivity and the accuracy of organizational task execution. From a decision-making perspective, management information systems serve as providers of accurate and up-to-date data. Systematically presented information facilitates regional leaders and structural officials in planning, controlling, and evaluating performance.



Research shows that local governments that optimally utilize information systems tend to have better decision-making quality because they are supported by integrated and accountable data.

In addition to impacting internal organizational performance, the implementation of management information systems also contributes to improving the quality of public services. Service processes supported by information systems tend to be more transparent and easily monitored by both officials and the public. This strengthens public trust in local government performance and encourages more accountable governance. However, these positive impacts do not automatically occur in all local government agencies. Several studies have shown that suboptimal use of management information systems actually creates additional administrative burdens for government officials. This occurs when the system is implemented without accompanying improvements in human resource competency and adjustments to organizational workflows. Consequently, the management information system serves only as a formal reporting tool without providing added value to the effectiveness of public performance and services.

Therefore, it can be concluded that the impact of implementing a management information system on the effectiveness of public performance and services is largely determined by the quality of implementation and organizational readiness. A management information system will provide maximum benefits if viewed as part of an organizational performance improvement strategy and supported by adequate human resources, infrastructure, and managerial commitment (Agiltriawan et al., 2025).

4. Solutions to improve the effectiveness of management information systems in public services

The effectiveness of Management Information Systems (MIS) in the delivery of public services depends on various interrelated factors. This section proposes eight integrated solutions based on barriers identified in the literature, supported by empirical evidence from peer-reviewed studies and applicable to the Indonesian public sector context. These solutions are organized according to strategic priorities.

a. Strengthening Technology Infrastructure and Ensuring System Reliability

Reliable technology infrastructure is a key prerequisite for MIS success. Public institutions in developing countries often face system outages, slow response times, and data loss due to inadequate hardware, unstable network connections, and the absence of backup mechanisms (Stuurman & Mabe, 2025). Their research in South African public institutions found that MIS systems are often inaccessible during peak hours due to server overload. Possible solutions include a comprehensive infrastructure audit prior to implementation or upgrades, an assessment of network stability (target uptime >99%), server capacity (concurrent user handling), and redundancy (power and data backups). For limited budgets, cost-effective cloud solutions are available, although these require a stable internet connection and compliance with data security regulations (Anthopoulos et al., 2016). Standardizing technology across government agencies is also crucial, with national authorities establishing mandatory standards for data formats, APIs, security protocols, and interoperability, thereby facilitating data integration.

b. Implementation of Competency-Based Sustainable Human Resource Development

Even the most advanced infrastructure is useless without a skilled workforce. Pereira, Beuren, & Santos (2025) demonstrate that behavioral factors such as role commitment mediate the relationship between HRIS and the performance quality of Brazilian civil servants, where employees with low commitment fail to perform optimally even when the system functions well. A tiered training model is recommended: Level 1 for basic digital literacy for all staff; Level 2 for specialized operations for those who interact directly with the public; Level 3 for



advanced problem-solving for technical teams. Ongoing training with refresher courses every six months, mentoring, and an internal knowledge base (Gil-Garcia & Pardo, 2005). Performance evaluations should include SIM competencies for promotion, with remedial training for those who are underperforming.

c. Establishing Binding Regulations with Sanctions and Incentives

The absence of a national regulatory framework has caused delays in the implementation of SIM. Luna-Reyes & Gil-Garcia (2011) use institutional theory to explain public organizations' resistance to technological change. The central government must issue binding regulations with implementation schedules, minimum digital service standards, and data integration requirements. Strict penalties such as budget cuts, public disclosure, or administrative consequences for leadership. Incentives such as additional funding, awards, greater autonomy, or priority in central government programs provide motivation (Dawes, 2009)

d. Developing Responsive Technical Support and Maintenance

Even the best systems are vulnerable to issues such as bugs, hardware failures, or user errors; without prompt support, employees will revert to manual processes and trust will diminish (Al-Busaidy & Weerakkody, 2009). Build a dedicated support team with SLAs: Level 1 (helpdesk via phone/email/tickets for simple issues); Level 2 (complex expertise such as database errors); Level 3 (vendors for patches). Response targets: 4 hours for critical issues, 48 hours for minor issues. An online ticketing system tracks status and identifies issue patterns (Stuurman & Mabe, 2025).

e. Periodic Evaluation and Continuous System Improvement

The effectiveness of a Management Information System (MIS) will decline without systematic evaluation; a project may start successfully but experience a decline in quality after 1–2 years due to changing needs, staff turnover, or technological updates (Anthopoulos et al., 2016). Annual evaluations include satisfaction surveys (staff & public), transaction time measurements compared to benchmarks, error rate audits, and monitoring of uptime (>99%). Evaluation results form the basis of a development roadmap: resource allocation for recurring issues, and readjustments as needed.

f. Interagency Data Integration and Interoperability

Data fragmentation forces citizens to resubmit information, thereby increasing transaction costs. Matvieieva et al. (2025) demonstrate that Ukraine's "single window" model improves service quality through data integration, privacy protection, and dispute resolution.

Start with a pilot involving two or three relevant agencies (e.g., civil registration and health, or licensing and taxation), then expand gradually with citizens' consent to share data (Dawes, 2009).

g. Citizen-Centered Design and Digital Inclusion

SIMs are intended for the general public, but complex applications hinder access. Issues: complicated navigation, technical jargon, and lack of accessibility (Medaglia et al., 2011). Implement user-centered design: involve citizens in needs assessments, testing, and feedback. Ensure a simple, multilingual interface that prioritizes mobile devices and is easily accessible. Maintain alternative channels (village kiosks, phone, physical counters) and run community-based awareness campaigns (Gil-Garcia & Pardo, 2005).

Building Leadership Commitment and Organizational Cultural Change The most challenging solution: organizational culture. Without leadership that leads by example, investments will be in vain. Pereira et al. (2025) emphasize the mediating role of SIM performance in fostering commitment. Leaders must use the system themselves, request digital reports, recognize active users, and run internal campaigns. This takes 2–3 years with the help of change management specialists (Luna-Reyes & Gil-Garcia, 2011).



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j. Summary of Proposed Solutions

Eight solutions are summarized in Table 1, including priorities, timelines, responsible parties, and key performance indicators.

Table 1. Summary of Solutions, Priorities, and Implementation Indicators

Priority	Solution	Recommended Timeline	Primary Responsible Party	Key Performance Indicator
1	Strengthening and standardizing infrastructure	6–12 months	Ministry of Communication and Information Technology	System uptime above 99 percent
2	Sustainable human resource development	3 to 6 months initial, ongoing every 6 months	National HR Agency	90 percent of staff pass competency assessment
3	Regulatory strengthening with sanctions and incentives	6 to 9 months	Ministry of Administrative Reform	Regulation issued and compliance audits conducted
4	Technical support and maintenance systems	3 to 6 months	Internal IT division within each agency	Issue resolution time below 24 hours for critical issues
5	Periodic evaluation and continuous improvement	Ongoing, quarterly reviews	Internal audit unit or inspectorate	Evaluation reports produced and action items completed
6	Cross-agency data integration and interoperability	12 to 24 months	Multiple agencies with national coordination	Data successfully shared across three or more agency systems
7	Citizen-centric design and digital inclusion	6 to 12 months	Service delivery agencies	User satisfaction score increases by 20 percent
8	Leadership commitment and organizational culture change	12 to 24 months	Agency leadership at all levels	Leadership actively uses system and digital reporting adopted

Source: Author's compilation based on a literature review.

**k. Limitations and Contextual Considerations**

Key limitations include variations in regional budgets poorer regions require phased implementation or shared infrastructure. Geographical factors such as limited internet access in remote areas necessitate the use of offline systems or mobile units. Political stability and bureaucratic resistance also play a role; cross-faction support enhances sustainability (Anthopoulos et al., 2016).

l. Conclusion of Section 5

There is no single solution that can overcome all SIM barriers. Infrastructure without a trained workforce is futile; regulations without enforcement are useless; evaluation without follow-up merely wastes resources. These eight solutions must be implemented in an integrated manner, with local adaptations but prioritizing the foundational elements (infrastructure, workforce, regulations) first. Future research should examine implementation within the context of Indonesian local governments, identifying optimal combinations amidst resource constraints and institutional conditions.

CONCLUSION

This research shows that the implementation of a Management Information System (MIS) plays a crucial role in improving the quality of public services by increasing efficiency, effectiveness, data accuracy, transparency, and ease of access. Prior to the implementation of a Management Information System (MIS), public services were dominated by manual processes, leading to delays, high error rates, and low efficiency and public satisfaction. Following the implementation of a Management Information System (MIS), service processes became faster, more integrated, more accountable, and more capable of supporting more accurate decision-making based on available data.

However, the success of a Management Information System (MIS) implementation depends not only on technology but also on infrastructure readiness, human resource competency, regulatory support, leadership commitment, and an organizational culture that supports digital transformation. Various obstacles, such as limited infrastructure, low employee digital competency, resistance to change, and suboptimal integration between institutions, remain challenges that need to be addressed.

Therefore, improving the effectiveness of a Management Information System (MIS) requires an integrated strategy, including strengthening technological infrastructure, sustainable human resource competency development, developing supportive regulations, improving technical services, regular system evaluations, integrating data between institutions, implementing community-oriented service designs, and strengthening leadership commitment. With the support of all these aspects, the Management Information System can become a strategic instrument in realizing higher quality, transparent, responsive, and sustainable public services.

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