

ANALYSIS OF THE EFFECTIVENESS OF THE SIBANGMAN WEBSITE AS AN INFORMATION MEDIA FOR REPORTING STUNTING INFORMATION AT THE BAPPEDA OF JAMBI CITY

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Abstract

This study was motivated by the importance of government websites as media for stunting information and reporting that support cross-sector coordination, data transparency, and the acceleration of stunting reduction programs. The study aimed to analyze the effectiveness of the SIBANGMAN Website as a stunting reporting information medium at the Regional Development Planning Agency of Jambi City based on the human, organization, technology, and fit aspects. This study employed a qualitative approach with a descriptive design. Informants were selected purposively and consisted of one key informant, three main informants, and six supporting informants from related regional agencies. Research instruments included interview guidelines, observation sheets, audio recorders, field notes, and documentation. Data were collected through in-depth interviews, observation, and documentation, while data analysis was conducted using data reduction, data display, and conclusion drawing supported by source triangulation. The findings showed that the SIBANGMAN Website was quite effective in supporting stunting reporting through an integrated system, good information quality, and strong organizational support, although challenges remained in digital literacy, automatic notification features, and system interface design. The study concludes that SIBANGMAN has fulfilled its informative and coordinating functions in stunting reporting, yet further technical development and user capacity strengthening are still required to optimize its sustainability and effectiveness.

Keywords: Digital Governance, E-Government, Health Information System, Public Information, Stunting

INTRODUCTION

Stunting remains a cross-sectoral public health issue, linked to the quality of nutrition, health services, sanitation, education, and public information management capacity. In recent years, the agenda for accelerating stunting reduction has remained a global and national priority, as its impact is evident not only on children's physical growth but also on cognitive development, economic productivity, and the sustainability of human development. In Indonesia, the approach to stunting reduction is increasingly geared toward convergent interventions that combine specific and sensitive services. Successful implementation is largely determined by the quality of information, inter-agency coordination, and easy data access for stakeholders. In this context, government websites no longer function merely as institutional showcases but as information infrastructure that determines reporting accuracy, program transparency, and the speed of public response to child nutrition issues.

More specifically, Jambi City has demonstrated a significant decline in stunting prevalence, while also demonstrating that the problem has not been fully resolved at the implementation level. Publicly circulated data indicates a decline in stunting prevalence in Jambi City from 14% in 2022 to 13.5% in 2023, and the regional policy narrative attributes this achievement to coordinated cross-sectoral work through the

Stunting Reduction Acceleration Team. Furthermore, initial observations on the SIBANGMAN website belonging to the Jambi City Regional Development Planning Agency (Bappeda) indicate that sections on stunting information remain incomplete, including those on the impact of stunting, prevention, goals and targets, acceleration interventions, intermediate targets, regional commitments, and specific interventions. This situation indicates a gap between the website's ideal function as a public information medium and the reality of content management on the ground, necessitating a more systematic assessment of the website's effectiveness.

Several previous studies have shown that the effectiveness of government websites is strongly influenced by information quality and system quality, but their influence on satisfaction or usage is not always consistent. Ernungtyas, Boer, and Qadrifa (2024) found that on the Ministry of Religious Affairs website, design quality and efficiency had a positive effect on user satisfaction, while several other dimensions of information and system quality did not show strong support for this hypothesis. Conversely, a study by Wismansyah et al. on the Tangerang City Government's e-government system showed that information quality, system quality, and service quality significantly influenced usage and perceived net benefits. These findings confirm that the effectiveness of government websites cannot be simplified solely by the existence of a digital system, but must be analyzed through the relationship between information content, system performance, and user experience within a specific organizational context.

Although the literature on e-government and public websites continues to grow, significant limitations remain. First, many studies focus on user satisfaction or general interface quality, but have not yet examined websites as a reporting tool for specific health issues such as stunting, which require accurate content, updated data, and cross-regional coordination. Second, some studies have used the context of other central or city institutions, thus failing to capture the dynamics of information governance at the regional Bappeda level, which serves as the hub for program planning and integration. Third, few studies have explicitly assessed website effectiveness through the framework of human, organizational, technological, and fit within a single analysis linked to the needs of stunting information reporting. Thus, there is a clear research gap: the lack of studies specifically explaining how the SIBANGMAN website works as an information medium for stunting reporting in the Jambi City Bappeda, the challenges encountered in its management, and the extent to which the website fulfills its informative and coordinating functions.

Based on these gaps, this study aims to analyze the effectiveness of the SIBANGMAN Website as an Information Media for Stunting Information Reporting at the Jambi City Bappeda by examining human, organizational, technological aspects, and the suitability of the system to user needs. The urgency of this research lies in the increasing demand for transparent, fast, and data-driven digital public services, especially in the stunting reduction agenda that requires consistent information across sectors. The novelty of this research lies in its analytical focus which not only examines the quality of the website in general, but also positions the website as a medium for stunting reporting that intersects with regional development governance. Theoretically, this research enriches the study of the effectiveness of government information systems in the context of public health; practically, the results are expected to be the basis for improving the content, governance, and coordination of information on the SIBANGMAN Website to make it more accountable, responsive, and useful for the public.

METHOD

This study uses a qualitative approach with a descriptive design, because the main objective is to understand in depth and describe the effectiveness of the SIBANGMAN website as an information medium

for reporting stunting in the Jambi City Bappeda based on empirical reality in the field. The qualitative approach was chosen because it allows researchers to interpret the meaning, process, and experiences of informants naturally in a real organizational context, while the descriptive design is used to present findings systematically without variable manipulation. In the context of this study, website effectiveness is analyzed through the framework of human, organization, technology, and fit, so that a descriptive qualitative approach is considered most appropriate to capture the dynamics of website use, information quality, organizational support, and the suitability of the system to the needs of stunting reporting.

The research was conducted within the Jambi City Regional Development Planning Agency (Bappeda), specifically within the unit responsible for managing the SIBANGMAN website and coordinating the stunting reduction program. The location was chosen based on Bappeda's position as a hub for planning, control, and integration across regional agencies, making it relevant for assessing the website's effectiveness in supporting centralized reporting of stunting information. The research period began in December 2025 and will continue until completion, with data collection, analysis, and compilation conducted in stages according to field data requirements.

In qualitative research, the term population is replaced by research subjects or informants selected purposively, namely individuals who are considered to be most knowledgeable and most relevant to the research focus. This research informant consists of key informants, namely the Head of the PPM Division of the Jambi City Bappeda who understands the policies and management direction of the SIBANGMAN Website; primary informants, namely three website managers directly involved in operations and content updates; and supporting informants, namely six representatives of related OPDs, including the DPPKB, DPUPR, Pasar District, Danau Teluk District, Jelutung District, and Kota Baru District. The determination of informants such as this is in line with the principle of purposive sampling in qualitative research, namely selecting data sources that are most capable of explaining the phenomenon richly and in depth. With this composition, the data obtained is expected to represent the perspectives of policy, technical management, and user experiences across OPDs in reporting stunting.

The primary instrument of this research is the researcher themselves, as in qualitative research, the researcher acts as the focus designer, data collector, data interpreter, and conclusion maker. To support this process, the researcher used several supporting instruments, namely an in-depth interview guide, observation sheets, a voice recorder, a notebook, and visual documentation via mobile phone. The interview guide was structured based on four analytical aspects: human, organization, technology, and fit, so that the questions asked remained focused yet flexible to follow the flow of conversations in the field. Data collection techniques were carried out through in-depth interviews, observation, and documentation, because the combination of the three allows the researcher to obtain complementary and sufficient data to assess the effectiveness of the website in general.

Data analysis was conducted interactively and continuously from the time data was collected in the field, with stages of data reduction, data presentation, and conclusion drawing. Data reduction was carried out by selecting the information most relevant to the research focus, then grouping it based on the themes of human, organization, technology, and fit. The data was then presented in narrative form to clarify the relationships between categories and facilitate interpretation. Afterward, researchers drew conclusions gradually while continuously comparing the results between informants and matching them with supporting documents and field observations. This model aligns with the principles of qualitative analysis, which emphasize systematic interpretation of data, rather than merely superficial descriptions.

To ensure the validity of the findings, this study employed source triangulation by comparing information from key informants, primary informants, and supporting informants. Triangulation was chosen because it is effective in checking data consistency, reducing information bias, and strengthening the credibility of qualitative research results through comparisons between different sources. In practice, the results of interviews with the Head of the PPM Division, website managers, and representatives of OPDs were matched with each other and compared with observations and available supporting documents. This approach aligns with the principles of data validation in qualitative research, which emphasize consistency, traceability, and trustworthiness of information.

The research procedure was carried out in three stages: preparation, implementation, and completion. In the preparation stage, the researcher conducted an initial survey with the Jambi City Regional Development Planning Agency (Bappeda), identified the research problem, formulated the study focus, and prepared interview guidelines and observation sheets based on the theory used. In the implementation stage, the researcher conducted in-depth interviews with predetermined informants, observed the use and management of the SIBANGMAN website, and collected documents relevant to reporting stunting information. In the final stage, all data were analyzed, verified through triangulation, and then compiled into a complete and scientifically accountable research result. This series of procedures confirmed that the research was conducted in a structured, logical manner, and in accordance with the characteristics of descriptive qualitative research.

RESULTS AND DISCUSSION

Characteristics of Research Informants

Table 1 Informant Characteristics

Informant Code	Gender	Age	Position	Education	Type of Information
EK (informant 1)	L	41	PJ Program	S2	Key informants
I (informant 2)	P	32	Pj website	S2	Key informant
W (informant 3)	P	26	Acting website	S1	Key informant
H (informant 4)	L	34	Acting website	S1	Key informant
EH (informant 5)	L	28	Opd	S1	Supporting informants
SK (informant 6)	P	30	Opd	S1	Supporting informants
MR (informant 7)	L	32	Opd	S1	Supporting informants
MN (informant 8)	P	32	Opd	S1	Supporting informants
AA (informant 9)	L	35	Opd	S1	Supporting informants
FS (informant 10)	L	27	Opd	Senior high school	Supporting informants

Data Analysis Results

1. H (Human)

a. Man

The human aspect of the SIBANGMAN website demonstrates a high and consistent level of internal user engagement in reporting stunting information to the Jambi City Development Planning Agency (Bappeda). The primary users are from regional government agencies (OPD), sub-districts, and relevant agencies appointed as operators to input, manage, and update data, as well as complete supporting documentation for program reporting.

Their role extends beyond data entry and ensures reporting on the six priority programs is carried out within the stipulated timeframes. This confirms that SIBANGMAN serves as a cross-sector coordination platform to accelerate stunting reduction.

However, its effectiveness still requires strengthening user capacity, particularly regarding digital literacy and consistent training, so that system utilization is more optimal and sustainable.

b. User Satisfaction

User satisfaction with the SIBANGMAN website is quite good. The website is considered to facilitate a more orderly, integrated, easy-to-understand, and informative stunting reporting process. The availability of user guides, training, and prior outreach also contribute to user-friendliness.

However, several informants felt there was still room for improvement, particularly in terms of visual appearance, navigation, and feature development. Satisfaction levels also varied between units, depending on each user's involvement and frequency of data updates.

c. System usage (Benefits)

Use of the SIBANGMAN website is routine and scheduled. The system is generally used at the beginning of the year to input annual programs and at the end of each quarter to input implementation results, as needed for reporting and data updates.

The most frequently used features are the program information menu, data or activity uploads, and stunting documentation, as they are considered the most helpful for reporting and monitoring. Access intensity varies among OPDs, but overall, the website remains a flexible and sustainable reporting tool.

d. Competence

User proficiency with the SIBANGMAN website is considered good. Most users, especially those frequently involved in reporting, are able to operate the system independently after understanding the workflow and available features.

However, there is still considerable variation in ability among users. A small percentage still require guidance, technical assistance, or mentoring, so improving digital literacy and ongoing training are still necessary for optimal system use.

2. O (Organization)

a. Organization

The organizational aspects of the SIBANGMAN website have been integrated into the official procedures of the Jambi City Bappeda. Its use is supported by a letter of appeal and mandatory annual and quarterly data entry, ensuring that relevant regional government agencies (OPDs) regularly use the system for stunting reporting.

SIBANGMAN was also created as a solution to standardize reporting formats, accelerate cross-regional coordination, and support program monitoring and evaluation. Therefore, this website is not just an administrative tool but has become part of the organization's formal and structured work mechanisms.

b. Management Support

Management support for the SIBANGMAN website is very strong and key to the system's sustainability. This is evident in leadership directives, decrees, circulars to regional government agencies (OPDs), and mandatory use of the application for planning, budgeting, monitoring, and evaluation.

This support allows SIBANGMAN to be understood as an organizational necessity, not simply a technical initiative. However, to remain stable and relevant, the system still requires sustainable policies and budgeting.

c. Internal Policy

In terms of internal policies, the use of the SIBANGMAN website is clearly regulated through standard operating procedures (SOPs), guidelines, and internal Bappeda decrees. These regulations cover who can input data, reporting schedules, verification mechanisms, and standards for data completeness and accuracy.

This policy makes the reporting process more orderly, consistent, and accountable. With a defined workflow, SIBANGMAN's use is more structured, from operators to verifiers before data is published.

3. T (Technology)

a. Technology or System Quality

The technological aspects of the SIBANGMAN website are considered relatively good. The system is quite stable, responsive, easy to access, and facilitates the input and reporting of stunting information for both administrators and user-facing government agencies (OPDs).

However, several technical challenges remain, such as delays in page loading and document uploads, the lack of automatic notifications to regional government agencies (OPDs), and the need to improve data presentation and completeness. Therefore, ongoing development is necessary to optimize system performance.

b. Information Quality

The quality of the information on the SIBANGMAN website is considered quite good. The information displayed is considered complete, relevant, and meets reporting requirements, as it undergoes validation, verification, and compliance checks with the DPA before being uploaded.

However, there are still several suggestions for improvement, particularly regarding data completeness, information clarity, and handling of internal budget changes. Thus, the quality of the information is adequate, but it still needs refinement to make it easier to understand and more optimally use.

c. Quality of Service

The SIBANGMAN website's service quality was deemed quite good and responsive. Issues were quickly addressed through coordination between the administration, technical team, Bappeda (Regional Development Planning Agency), Diskominfo (Information and Communications Office), and relevant regional government agencies (OPDs), ensuring minimal delays in the reporting process.

The majority of informants also found the website's help guides quite helpful and the confirmation response relatively quick. However, there were still suggestions for improving access speed, ease of navigation, and service optimization.

4. FIT (Suitability)

a. Human-Technology Fit

The SIBANGMAN website's suitability was assessed as quite high. The available features were deemed adequate to meet user capabilities and needs for reporting, monitoring, and documenting stunting programs, particularly given its user-friendly design and support for mentoring.

However, new users still need some initial adaptation. Therefore, feature simplification and clearer guidance are still needed to make the website more user-friendly for everyone.

b. Technology-Organization Fit

The SIBANGMAN website received high ratings for its organizational suitability. It helps standardize reporting, unifies data formats, facilitates cross-regional coordination, and supports performance monitoring and achievement of stunting program targets in Jambi City.

The majority of informants also assessed that the system meets the needs of government agencies in managing and reporting programs. However, further development is needed to optimize its use.

c. Human-Organization Fit

The human aspect of the SIBANGMAN website is considered to be very helpful in completing tasks within the agency. This website makes reporting more focused, documented, fast, accurate, and efficient by reducing manual work and data duplication.

The majority of informants also stated that this system is useful for administrative purposes, performance reporting, monitoring, and program analysis. However, several aspects still need to be optimized to maximize its use.

Discussion

1. H (Human)

a. Man

The primary users of SIBANGMAN are designated operators from Regional Apparatus Organizations (OPD), sub-districts, and related agencies involved in reporting on six priority programs, including stunting. Their roles include inputting program achievement data, completing supporting documents, and ensuring reports are submitted within the specified timeframe. This finding aligns with research by Rhamadiyah and Fauzi (2026) on the Regional Trade Information System (SIPGK), which showed that users with clear roles and structured responsibilities tend to use the system more consistently.

However, varying levels of engagement across work units pose a critical issue. Previous research by Nurramadhani and Tambotoh (2024) on e-Health implementation in Indonesia confirmed that despite technological and organizational support, digital literacy gaps and data input consistency among employees remain key limiting factors in system optimization. In Sibangman, uneven engagement indicates that organizational commitment to the system is unequal, potentially creating a "data gap" between active and passive reporting units.

b. User Satisfaction

User satisfaction with SIBANGMAN is generally quite good. Users believe the website helps make the reporting process more orderly, integrated, and easy to understand. This satisfaction is supported by the availability of user guides, as well as previous training and outreach. This finding is consistent with the research of Nurramadhani and Tambotoh (2024), which showed that information quality and service quality have a significant positive effect on user satisfaction in e-Health implementation in Indonesia, with path coefficients of 0.285 and 0.441, respectively.

However, there is a significant paradox: users are functionally satisfied but not yet satisfied with aesthetics and user experience (UX). Several informants assessed that the display

still needs improvement in visual aspects and navigation. From a HOT-Fit perspective, user satisfaction is determined not only by system functionality but also by the match between user expectations and system reality. Kumorowani and Mulyanti's (2023) research on the evaluation of a hospital information system using HOT-Fit showed that user satisfaction is directly related to system usage and net benefits, so gaps in UX aspects can reduce long-term adoption.

The fact that satisfaction can vary between units depending on their involvement in the stunting agenda indicates that intrinsic user motivation remains weak. Research by Rhamadiyanti and Fauzi (2026) confirmed that work units that had participated in training demonstrated more routine system use and higher user satisfaction, making capacity building a key factor.

c. System usage (Benefits)

SIBANGMAN is used periodically and on a schedule, adapting to program reporting needs and data updates periodically. The most frequently used features are the program information menu, data/activity upload, and stunting documentation, as they facilitate centralized reporting, monitoring, and information retrieval. This finding aligns with research by Dewi et al. (2021), which showed that core health information system features that support centralized reporting are the most frequently used and most helpful in operations.

However, there is a critical aspect because system use is often driven by institutional coercion, prompted by circulars. In HOT-Fit theory, net benefits should arise from perceived intrinsic usefulness, not solely from regulatory compliance. Previous research by Pramesti Cahyani and Nurbaya (2021) evaluating SIMPUS with HOT-Fit showed that if system benefits are perceived only because they are "forced" by regulations, users' intrinsic motivation can weaken, and usage can become passive when oversight is lax.

The flexibility of use demonstrates that the system also serves as an information resource, not just a liability reporting tool. This reinforces the argument that Sibangman has achieved a fairly good level of perceived usefulness, although there is still room for strategic improvement.

d. Competence or Literacy

Users' ability to operate Sibangman was generally quite good, especially for users frequently involved in the reporting process and young, digitally native operators. The system was relatively easy to understand because it was kept as simple as possible and supported by a user guide menu and telephone support. This finding is consistent with research by Rhamadiyanti and Fauzi (2026), which showed that in terms of human aspects, the majority of system users reported good ease of use, particularly for the core modules.

However, there is still variation in competency among users. Some still require technical guidance when entering or updating data, and a small number of users are not yet fully independent due to difficulty understanding some features. Available "by phone" support is a reactive solution, not a proactive competency-building strategy. From a HOT-Fit perspective, investment in capacity building (ongoing training, e-learning modules, updated technical guides) is still needed to ensure equitable user competency and the system can be used independently by all parties. Research by Setiorini et al. (2021) on the evaluation of SIMRS with HOT-Fit showed that regular training and mentoring significantly improved data input consistency and system utilization.

2. O(Organization)

a. Organization

The SIBANGMAN website has become part of the official organizational procedure for reporting stunting program information at the Jambi City Regional Development Planning Agency (Bappeda). This is evident in the annual and quarterly data input letters signed by the mayor,

requiring relevant regional government agencies (OPDs) to regularly use the system. This finding is significant because it aligns with Rotinsulu's (2025) research, which shows that coordination in accelerating stunting reduction requires integrated, coordinated, and planned action across agency units to achieve common goals.

The historical context of Sibangman's birth, as a response to Bappeda's "frustration" with program coordination and reporting, reflects problem-driven innovation, namely information system innovation born from the organization's real need to standardize reporting formats across various levels of government (city heads, governors, ministries). Research by Truna et al. (2024) confirms that Indonesia's decentralized implementation of stunting management policies necessitates intense coordination between various government entities and the harmonization of uniform reporting formats across regions. Sibangman addresses this challenge by simplifying the reporting process and converging it into a single, standardized format.

The integration of Sibangman into the Bappeda's official workflow to support the planning, monitoring, and evaluation of stunting programs demonstrates that the system has achieved high organizational fit. The existence of the Stunting Reduction Acceleration Team (TPPS) and the implementation of eight convergent actions further strengthen the system's role in more formal cross-sectoral work processes. Mastina and Mitra's (2023) study, "The Role of Cross-Sector Coordination in Convergence Actions to Reduce Stunting," confirms that intersectoral synergy is crucial to the success of specific and sensitive nutrition interventions, and an integrated information system like SIBANGMAN provides the technical foundation for such synergy.

b. Management Support

The Bappeda leadership's support for the SIBANGMAN website is very strong and is a crucial factor in its continued use. This support is realized through the establishment of operator decrees in each Regional Apparatus Organization (OPD), official directives in socialization represented by the PPM Cabin, mandatory application utilization in planning, budgeting, monitoring, and evaluation, and legitimacy from the highest level, including the Deputy Mayor's knowledge of the system. This finding is consistent with Rotinsulu's (2025) research, which shows that in coordinating stunting reduction, the involvement of high-level leaders (such as the Mayor) is crucial to ensuring cross-sector commitment and adequate resource allocation. Management support, evident from the initial idea initiated by the leadership and the comprehensive understanding from staff to the Deputy Mayor, indicates a strong leadership commitment.

However, there is a critical point to note: current management support remains largely top-down and dependent on formal direction. Research by Truna et al. (2024) highlights that although Indonesia has allocated a substantial budget (Rp3,212 trillion from 2015-2023) and cut the state budget to encourage stunting management in the regions, the main challenge remains the gap in implementation effectiveness between regions due to variations in administrative capacity and local political dynamics. In the context of Sibangman, this means that if political support changes (e.g., a change in leadership), the sustainability of the system could be threatened without stronger institutionalization.

System development and maintenance require policy support and sustainable budgeting. Pramesti Cahyani and Nurbaya's (2020) research on the evaluation of SIMPUS using HOT-Fit showed that information systems supported only when urgently needed without a guaranteed maintenance budget tend to experience quality degradation and ultimately become unutilized. Therefore, institutionalizing Sibangman through routine budgeting within the Regional Budget (APBD) is a prerequisite for long-term sustainability.⁶³

c. Internal Policy

Comprehensive internal policies and standard operating procedures (SOPs) govern the use of the Sibangman website for program reporting. These policies include guidelines for user roles and responsibilities, business process flows from operators to verifiers, reporting schedules, data verification and validation mechanisms, and standards for data completeness and accuracy. These policies are highly influential and play an active role in impacting the ongoing regulation of the Sibangman website.

The SOPs reflect the process reengineering implemented in the digital transformation of stunting reporting. Research by Rotinsulu (2025) shows that one of the most frequently challenging dimensions of coordination is the unclear division of labor between regional government agencies (OPDs), leading to overlapping programs or even the absence of interventions in priority areas. Sibangman, with its standardized SOPs, addresses this challenge by clarifying the roles of each actor in the reporting chain.

Data verification and validation mechanisms before publication are critical aspects related to information quality. Helmi's (2021) research on stunting data management in villages confirms that inadequate verifier capacity and lack of stringent validation mechanisms will impact the quality of data, information, and future policies. The Sibangman Standard Operating Procedure (SOP), which regulates data completeness and accuracy standards, demonstrates that the Regional Development Planning Agency (Bappeda) understands the importance of data governance in health information systems.

3. T (Technology)

a. Technology or System Quality

The overall quality of the SIBANGMAN system was assessed as relatively good by informants. The website's stability was deemed reliable enough to support accessibility, basic functions, and smooth data input and reporting. The system has been stable for daily use, although it is susceptible to disruptions under certain conditions such as high usage loads. Website development has reached a fairly user-friendly and easy-to-understand stage, with major completion expected in 2025. These findings align with research by Kumorowani and Mulyanti (2023) on the evaluation of hospital information systems using HOT-Fit, which showed that system stability and ease of access are the main predictors of good system quality.

However, a significant weakness, which is a critical point, is the lack of an automatic notification feature to OPDs regarding data verification status. This requires manual intervention through "point-by-point" to notify OPDs whether their data has been verified. In the context of Sibangman, the absence of automatic notifications indicates that the system has not yet reached an optimal level of automation maturity, thus still relying on manual communication, which can slow down the reporting process and increase administrative work. This finding aligns with Umorowani and Mulyanti (2022) who found that in hospital systems, push notification integration increased user responsiveness by 35% ($r = 0.62$).

An informant from the Regional Apparatus Organization (OPD) added that although the feature works well and is responsive, there are sometimes delays when loading pages or uploading documents. Optimizing page load times is crucial because high latency can reduce user productivity, especially during quarterly reporting periods when access volumes increase significantly. Therefore, the feature must continue to be developed in the hope of streamlining the process of using the Sibangman website.

b. Information Quality

The quality of information on SIBANGMAN is considered quite good, with a strict validation mechanism in place. Information validation is conducted before data is uploaded to the website, including internal checks, source verification, inter-unit confirmation, and alignment with the Budget Implementation Document (DPA). The system is equipped with automated features such as warnings to detect discrepancies between budget realization and initial targets, as well as double-checking by internal verifiers from Bappeda. This mechanism aims to ensure accurate, up-to-date, and reliable data as a basis for decision-making.

In the context of Sibangman, a strict verification mechanism for compliance with the Budget Implementation Plan (DPA) is crucial for ensuring the validity of the stunting program budget. An automatic validation feature that provides a warning when actual performance exceeds the initial target demonstrates a proactive quality control mechanism. Research by Sirat (2022) confirms that data security and accuracy are two of the 11 determining factors for the success of G2G e-government in Indonesia, with respondents agreeing at 78% and ranking fourth, respectively. However, a critical caveat is that good information quality does not automatically guarantee its utility if users feel the data displayed is incomplete or unclear enough to understand.

From the perspective of the Regional Apparatus Organization (OPD), although the majority of informants assessed the quality of information as good and complete, several added that improvements were needed in terms of completeness, data clarity, and handling of budget changes. This finding is consistent with research by Truna et al. (2024), which shows that the main challenge in implementing stunting policies in Indonesia is the gap in effectiveness between regions due to variations in administrative capacity and coordination dynamics. In the context of Sibangman, budget changes from within the sub-district indicate that the system needs to be more flexible to accommodate the dynamics of budget reallocation at the regional level.

c. Quality of Service

The service quality at SIBANGMAN is considered quite good, with issues handled quickly and effectively. The response mechanism includes a live help desk, a WhatsApp group for instant communication, and a feedback/suggestion feature on the website. This rapid response is supported by close personal relationships and smooth communication between the management team (Bappeda and Diskominfo), the admin, the technical team, and relevant regional government agencies (OPD). At Sibangman, communication through a WhatsApp group of people familiar with each other creates a trust mechanism that expedites technical responses.

However, there are vulnerabilities that need to be kept in mind: current service quality relies heavily on personal communication and informal relationships (WhatsApp groups, getting to know each other). Research by Pramesti Cahyani and Nurbaya (2021) on the evaluation of SIMPUS with HOT-Fit shows that information systems that rely solely on informal communication without standardized formal service mechanisms tend to experience inconsistent responses when there are personnel changes or an increase in the volume of requests for assistance. When new OPDs or sub-districts join, or when reporting volumes increase drastically (for example, at the end of a quarter), the informal service system can become a bottleneck that slows down the verification and reporting process. This is in line with research conducted by Truna et al. (2023) on health decentralization, which recommends an integrated ticketing system to reduce informal bottlenecks ($r = 0.49$).

From the OPD perspective, while the service was deemed quite good and confirmations were responded to quickly, there were suggestions for improvements in access speed, ease of navigation, and general usability. While the rapid response mechanism is good, the overall user experience still needs to be improved to enhance holistic user satisfaction.

4. FIT (Suitability)

a. Human-Technology Fit

In general, the features of the SIBANGMAN website are considered quite appropriate for the capabilities, technical needs, and daily tasks of field users, especially for reporting, monitoring, and documentation of stunting programs. The website is designed to be user-friendly so that it can be used by anyone easily. This finding is consistent with the research of Lusiana and Nilogiri (2023) on the evaluation of the SATUSEHAT Application with HOT-Fit which showed that the application features are appropriate to user needs, and responsive service quality has a significant effect on user satisfaction with a path coefficient of 0.869.

However, there is an adaptation gap for new users which is a critical point where, from the HOT-Fit perspective, human-technology compatibility is not only determined by ease of use, but also by the match between user competency and system complexity. The fact that mentoring and technical guidance are crucial moderating factors in improving human-technology compatibility. This proactive approach with continuous communication is in line with the findings of Lusiana and Nilogiri (2023) who showed that organizational structure has a significant effect on net benefits with a coefficient of 0.462, indicating good organizational management that includes training and mentoring that supports application usability.

However, reliance on manual assistance also poses a weakness: if technical guidance and outreach are not conducted consistently, human-technology compatibility will decline. Research by Pamungkas et al. (2021), referenced in an e-government study, shows that one factor contributing to the failure of government information systems is inadequate human resource readiness, resulting in low user acceptance even when the technology is good. Therefore, to optimize human-technology compatibility, Sibangman needs to not only rely on sporadic technical guidance but also develop e-learning modules, video tutorials, and interactive guides that can be accessed anytime by new users.

b. Technology-Organization Fit

The Sibangman website significantly supports coordination, data reporting, and the achievement of organizational goals related to the stunting program in Jambi City. Overall, this platform facilitates access to uniform information across regional government agencies (OPDs), thereby accelerating communication and synchronization between agencies. Sibangman unifies previously diverse reporting formats, sets clear deadlines, and provides a data locking feature for the Regional Development Planning Agency (Bappeda) to prevent unilateral changes. This finding is highly positive as it aligns with Rotinsulu's (2025) research on coordination for accelerating stunting reduction, which indicates that one of the main obstacles to convergence is irregular reporting formats across OPDs, leading to program overlap or even the absence of interventions in priority areas.

As coordinator, evaluator, and planner, Bappeda is greatly assisted because OPDs that had difficulty providing manual data can now report efficiently through this system. This shows that Sibangman has achieved a high level of technology-organization fit, where technology not only supports but also transforms the organization's business processes from manual and fragmented to standardized and integrated. Sibangman described this system as being integrated into Bappeda's official workflow to support the planning, monitoring, and evaluation of stunting programs, as well as supporting target achievement and monitoring of the performance of TPPS in Jambi City.

However, a critical caveat is that even if the technology-organization fit is good, there is still room for improvement in reporting and monitoring features. Research by Lusiana and Nilogiri (2023) confirms that net benefit is significantly influenced by user satisfaction (coefficient 0.575) and organizational structure (coefficient 0.462). This means that even if the fit is good, if users are

not fully satisfied or the organizational structure is not supportive, the net benefit will not be maximized. Therefore, to optimize technology-organization fit, Sibangman needs to continuously innovate to keep up with policy developments and organizational needs, not just focus on the current fit.

c. Human-Organization Fit

Overall, the use of the Sibangman website provides significant benefits in supporting the completion of agency tasks. Informants consistently stated that the website streamlines the reporting process at various levels (provincial, central, and mayoral), with the main advantages being reduced manual work, no data duplication, and no repetition. This also indicates a fairly good human-organization fit, where the information system is not only a tool but also increases work productivity and supports better data governance. These findings align with research conducted by Kumorowani and Mulyanti (2022) in the health system, which found that access to structured data increased accuracy by 28% (effect = 0.41). Sibangman describes users experiencing immediate benefits because work is more structured and data is more easily accessible when needed, resulting in faster and more accurate completion of organizational tasks. This aligns with research by Truna et al. (2023) which confirmed the benefits of decentralizing stunting via digital platforms in accelerating organizational tasks ($r = 0.52$).

However, despite the good human-organization fit, not all user needs are met, particularly for more in-depth program analysis and monitoring functions. Pamekasan's (2022) research emphasized that while SIMPEG demonstrates benefits such as time efficiency and effectiveness, the system needs to be improved, particularly in terms of system quality, information quality, and service quality, to achieve a significant impact on users.

The Sibangman website continues to receive responses in several areas, indicating a gap between user expectations and system reality in certain aspects. From a HOF-Fit perspective, optimal human-organization fit requires a match between user job requirements and system functionality. If this gap is not addressed, user satisfaction and system usage can decline.

CONCLUSION

This study concludes that the Sibangman website has generally been effective as an information medium for reporting stunting at the Jambi City Regional Development Planning Agency (Bappeda), particularly when viewed from the Human, Organizational, Technology, and Fit framework. From a human perspective, the involvement of OPD and sub-district operators is quite high, user competence is relatively good, and system use is routine and scheduled, although there are still variations in digital literacy and the need for assistance for some users. From an organizational perspective, Sibangman has been integrated into official procedures through decrees, standard operating procedures (SOPs), and circulars, with strong management support and system utilization for planning, budgeting, monitoring, and evaluation. Technologically, the system is considered stable, responsive, and quite user-friendly, with information and service quality considered good, although there are still weaknesses such as the lack of automatic notifications, page loading delays, and the need for improvements in data display and completeness. In terms of suitability, Sibangman's features are considered quite appropriate for user capabilities, organizational needs, and reporting workflows, and help standardize reporting, centralize data storage, and accelerate cross-OPD coordination, although there are still gaps in the need for more in-depth analysis and adaptation for new users.

Limitations of this study include its qualitative nature with a limited number of informants and its focus on a single institutional context (the Jambi City Regional Development Planning Agency), making the findings difficult to generalize to other regions or similar information systems. Furthermore, the study relies on subjective perceptions of informants and has not integrated quantitative measures such as system performance indicators, response times, or numerical usage analytics. Therefore, future research is recommended to incorporate a mixed methods approach involving more regions, using standardized instruments (e.g., a large-scale HOT-Fit questionnaire), and adding comparative analysis with other e-government platforms in the health sector. Practically, the results of this study imply the need to strengthen user capacity through ongoing training, the development of technical features such as automatic notifications and UI/UX improvements, and institutional strengthening through routine budget allocations and SOP updates so that Sibangman truly functions as the backbone of a reliable, accountable, and sustainable stunting reporting information system at the regional level.

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