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Implementation of a Web-Based Media Partnership Registration Information System Using Waterfall Model

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Abstract. The Minahasa Regency Department of Communication and Informatics manages public information and cooperation with press media organizations, yet press media partnership registration is still handled manually. This causes processing delays, data duplication, limited traceability, and poor visibility of verification status, increasing administrative workload and reducing service transparency for applicants. This study implements a web-based Press Media Partnership Registration Information System to digitalize and standardize the registration workflow. Development follows the Waterfall model, including requirement analysis, system design, implementation, testing, and refinement to ensure structured deliverables suitable for government environments. The system provides CRUD-based data management, administrator-led verification with status tracking, and automated email notifications for verification outcomes. Functional validation uses Black Box Testing to evaluate input-output behavior against predefined specifications. Test results show that core modules—account registration, login, partnership submission, verification (approve/reject with notes), CRUD operations, session control, and email notification—operate correctly and meet functional requirements. The implemented system is feasible for operational use and improves efficiency, data accuracy, traceability, and transparency in local government press media partnership administration.

Keywords: e-government; web-based information system; press media partnership; Waterfall model; Black Box testing

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1. INTRODUCTION

The rapid advancement of information technology has reshaped how public institutions manage governance and deliver administrative services, with web-based information systems becoming a central enabler of efficiency, transparency, and accountability in the public sector [1], [2], [3]. In many government environments, digital systems are no longer viewed as optional enhancements; they are increasingly necessary to support structured data governance, reduce bureaucratic delays, and provide timely, traceable services to external stakeholders [4], [5]. However, the benefits promised by e-government are often constrained by persistent reliance on manual workflows in specific administrative domains, particularly those involving multi-party coordination and verification.

One such domain is press media partnership administration. The Department of Communication and Informatics of Minahasa Regency plays a strategic role in managing public information and coordinating cooperation with press media, which makes the administration of media partnerships a critical institutional function [6], [7], [8]. Effective partnership governance is essential not only to ensure reliable dissemination of public information, but also to maintain accountability and trust between government institutions and media organizations. In this context, partnership registration is not merely a clerical process—it is a foundational step that determines how collaboration is initiated, verified, documented, and monitored over time.

Despite its importance, the press media partnership registration process at the Minahasa Regency Department of Communication and Informatics remains dominated by manual administrative procedures [9], [10]. This manual approach introduces several operational problems: long processing times, repeated or duplicated data entry, weak traceability of registration records, and limited visibility into the verification status of submissions [7], [11]. These constraints create a practical service gap for press media organizations, which often need clear confirmation, transparent status updates, and predictable processing timelines to formalize cooperation. Internally, the same constraints increase administrative workload and complicate monitoring, reporting, and archival processes—ultimately reducing responsiveness and weakening transparency in public service delivery.

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To address these problems, this study implements a web-based Press Media Partnership Registration Information System designed to digitize and standardize the end-to-end registration workflow. The system integrates structured CRUD-based data management, administrator-led verification procedures, and automated email notifications to improve traceability, reduce redundancy, and strengthen transparency throughout the registration lifecycle. This implementation is developed using the Waterfall model to ensure systematic requirement definition, design, development, and testing aligned with institutional needs. Functional evaluation shows that core modules successfully passed Black Box Testing, indicating that system behavior conforms to predefined requirements and demonstrating operational feasibility for institutional use.

Although e-government research has widely discussed public service information systems, studies that document applied, end-to-end system implementation for press media partnership administration—especially at the local government level—remain limited. Much of the existing literature emphasizes conceptual discussions and general service digitization rather than presenting a validated workflow-specific system built and evaluated within a real institutional environment. This study fills that gap by presenting a context-aware implementation that directly addresses administrative bottlenecks in media partnership registration and provides documented functional validation as evidence of readiness.

Accordingly, the novelty of this work lies in its applied contribution: it extends web-based e-government implementation to the underexplored administrative area of press media partnership management, while also demonstrating a complete development cycle (from problem identification through functional testing) tailored to a regional government context. Academically, this research strengthens the body of knowledge on public sector information systems by highlighting a specific administrative workflow that has received limited attention in prior implementation-focused studies. Practically, it offers an implementable model for improving administrative efficiency, data accuracy, and service transparency in local government operations. The scope of this study is limited to registration and verification administration, excluding broader media governance functions and automated decision-making, which remain under institutional authority.

2. METHODS

To ensure that the developed system directly addresses the operational problems found in the manual partnership registration process, this study follows a structured research flow that connects field findings to system requirements, implementation, and validation. The flow is designed to make each development activity traceable—starting from identifying real administrative bottlenecks, translating them into functional and non-functional requirements, and then transforming those requirements into a working web-based application that is tested against predefined specifications. By organizing the methodology into clear sequential stages, the study reduces ambiguity in development decisions and strengthens reproducibility, particularly within government environments where documentation and procedural clarity are essential [12]. The overall methodological pathway adopted in this study is illustrated in Figure 1.

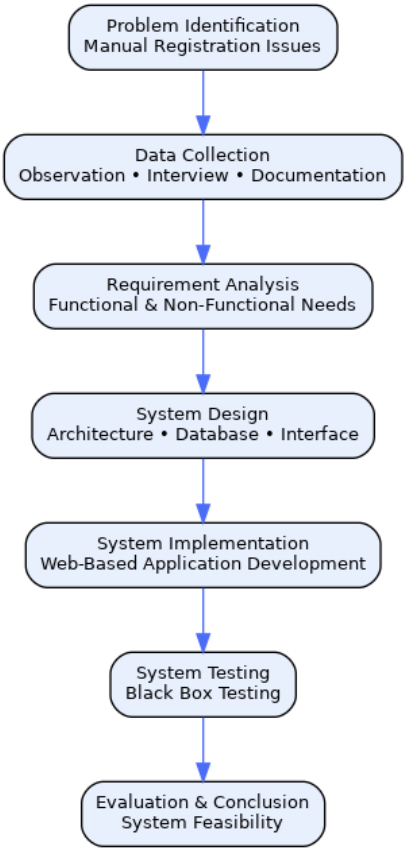

Figure 1. Research Flow

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Figure 1 summarizes the research flow used in this study to ensure that system development is systematic, traceable, and directly aligned with the administrative problems encountered in the field. This study adopts a structured research flow that is implemented through the Waterfall development model. The Waterfall model is selected because of its sequential, documentation-driven nature, which is well suited to government system development environments that require clear deliverables at each stage and stable control of requirements and verification procedures [13], [14]. Accordingly, each stage in the research flow is aligned with a corresponding Waterfall phase, ensuring that field-based problems are systematically translated into system requirements, implemented into a working application, and validated through functional testing. The flow is organized as follows:

Problem identification (pre-analysis baseline)

This stage diagnoses the operational weaknesses of the existing manual press media partnership registration process, including data duplication, processing delays, limited traceability of submitted records, and constrained monitoring of verification status. The outputs of this stage define the problem boundaries and establish the practical foundation for system development by linking administrative issues to measurable workflow limitations.

Data collection (supporting requirement analysis)

Data are collected through observation, interviews, and documentation analysis. Observation is used to examine the real workflow as implemented (not only as formally described), including how applications are received, recorded, verified, and archived. Interviews with administrative staff capture functional expectations, verification practices, service constraints, and pain points that may not appear through observation alone. Documentation analysis clarifies formal procedures, mandatory data fields, and record structures used in the existing process. Together, these methods produce empirical inputs that strengthen requirement accuracy and ensure the system is grounded in real institutional needs.

Requirement analysis and system design (Waterfall phases 1–2)

Based on problem identification and collected data, functional and non-functional requirements are formulated. Functional requirements include account registration, partnership application submission, document upload/management, administrator verification, status updates, CRUD-based data handling, and email notification delivery. Non-functional requirements emphasize usability, basic security controls, reliability,

maintainability, and consistent data storage. These requirements are then translated into technical designs, including system architecture, database schema (ERD), use case models, and interface layout plans. Design emphasizes role separation (e.g., applicant and administrator), traceable registration records, and consistent data structures to reduce duplication and support monitoring.

System implementation and testing (Waterfall phases 3–4)

System implementation is performed by developing a web-based application using PHP for backend development, MySQL for database management, and HTML/CSS/JavaScript for the user interface. Implementation ensures that every module corresponds directly to the specified requirements and supports the intended administrative workflow. After implementation, functional testing is conducted using the Black Box Testing method to verify that input-output behavior for each feature matches predefined specifications. Testing covers critical functions such as registration, login, data submission, verification actions, CRUD operations, status updates, and automated email notifications.

Evaluation, conclusion, and maintenance orientation (Waterfall phase 5)

The final stage evaluates system feasibility and effectiveness based on testing results and observed improvements in administrative workflow support, including improved traceability, reduced data redundancy, clearer verification monitoring, and increased transparency of the registration lifecycle. This stage also functions as the maintenance orientation phase, where refinements are identified based on testing outcomes and user feedback to ensure the system remains aligned with institutional workflow expectations and operational needs [13], [14].

2.1. Research Approach and Type

This research adopts an applied research type because it operationalizes information system concepts and web-based development practices to solve a specific administrative problem. A descriptive qualitative approach is used to describe the institutional context, system requirements, and the development process based on empirical data collected at the research site [15], [16]. The qualitative orientation is particularly relevant because the key development inputs—workflow constraints, verification practices, and user expectations—are best captured through direct engagement with institutional actors and documentation rather than through purely quantitative measurement.

2.2. Research Object and Location

The research object is the press media partnership registration process conducted by the Minahasa Regency Department of Communication and Informatics. The scope covers operational activities directly related to administrative registration and verification, including account creation, application submission, document handling, verification and validation by administrators, status tracking, and notification delivery. The study was conducted at the Diskominfo office of Minahasa Regency, where the existing manual procedure is carried out and where system requirements could be verified against real workflow conditions.

2.3. Data Collection Techniques

Data collection is performed using three complementary techniques to ensure requirement accuracy and contextual validity:

1) Observation

   Direct observation is conducted to capture the actual registration workflow, identify bottlenecks, and document how data are recorded, stored, searched, and verified [17]. This method supports identification of inefficiencies such as repeated entry, inconsistent record formats, and limited traceability in the manual process.

2) Interviews

   Semi-structured interviews are conducted with administrative staff responsible for managing press media cooperation. Interviews focus on functional expectations (what the system must do), operational constraints (what cannot be changed due to policy or practice), verification procedures, and common issues experienced when handling submissions [18].

3) Document Analysis

   Institutional documents—such as registration forms, cooperation archives, administrative guidelines, and required document lists—are reviewed to define standard data attributes, validate required fields, and support database design. This analysis helps ensure that the digital system reflects the institution's formal requirements and existing record structures [19].

2.4. System Workflow and Procedural Algorithm

The system workflow is managed through a procedural (step-by-step) algorithm that structures the registration lifecycle into sequential stages: user account registration,

login authentication, partnership application form submission, administrative verification, status updating, and automated email notification delivery [22]. This procedural structure is designed to ensure traceable records and consistent processing across submissions, while also enabling administrators to monitor verification states and manage partnership data through CRUD-based operations. Importantly, the system does not implement automated decision-making algorithms for approval determination [23]. Decisions to approve or reject cooperation requests remain the responsibility of administrators and are conducted based on institutional policies and evaluation criteria. This design preserves governance accountability and ensures that human judgment remains central to partnership decisions while the system functions as an administrative support and documentation tool [24].

2.5. Testing Method

System testing is conducted using the Black Box Testing method, which evaluates system functionality based on observable outputs produced from defined inputs without examining internal source code logic. Testing focuses on validating whether each module conforms to functional specifications. Each feature is tested using representative input scenarios to confirm that the system responds correctly, stores data consistently, and produces the expected interface messages or notifications. The pass/fail criterion is determined by alignment between expected and actual behavior as defined in the functional requirement specification.

3. RESULTS AND DISCUSSION

3.1. System Interface Implementation

This section presents the key implementation outputs of the web-based Press Media Partnership Registration Information System. Only the most essential interfaces are highlighted to reflect the end-to-end workflow—from account creation to verification outcomes—because these modules represent the core administrative value of the system: structured submission, traceable verification, and transparent communication of results.

1) Press Media Account Registration Interface

The system begins with a press media account registration feature, which functions as the mandatory entry point before users can submit partnership requests. Through this interface, press media organizations create an account by providing identity and contact information that will later support authentication, traceability, and communication. The input fields include full name, active email address, username/password, phone/WhatsApp contact, address, and media-specific attributes such as media organization name and media type classification. Capturing these attributes at the start is important because the partnership registration process depends on a verified user identity and consistent organizational metadata, which is often difficult to maintain in manual workflows.

From a data management perspective, this interface implements the Create function of CRUD by storing validated user records into the database. Mandatory validation prevents incomplete submissions, which reduces correction cycles for administrators and minimizes inconsistencies that typically cause duplication in manual administration. In addition, structuring the "Media Information" component (name and type) supports systematic grouping of applicants and simplifies downstream verification, where administrators need to review applications quickly and consistently. Figure 2 shows the Register/Sign Up interface used by press media organizations.

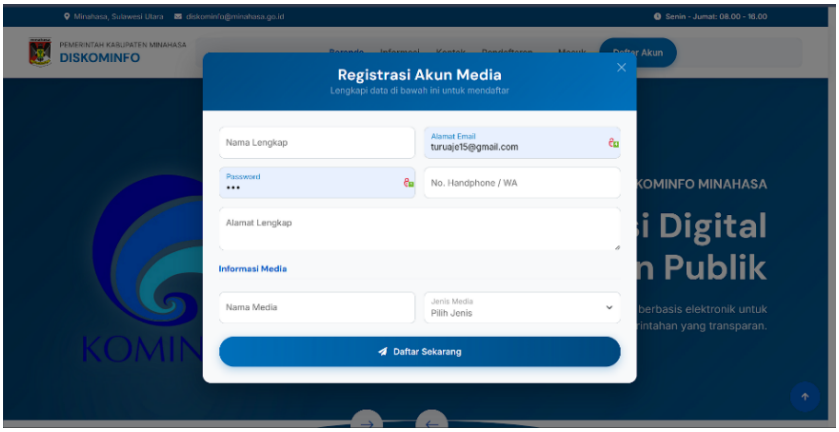

Figure 2. Register/Sign Up for Media Press Account

2) Authentication Interface (Login)

After registration, users access the system through login authentication. The login feature is role-based: press media users and administrators sign in using valid credentials,

and the system routes them to dashboards according to assigned access rights. This separation is essential to maintain confidentiality of administrative functions (verification and data control) while providing applicants with controlled access to submission and status monitoring.

Authentication strengthens security and accountability because system activities can be tied to specific user identities. Invalid login attempts trigger error messages and block access, preventing unauthorized interaction with partnership data. While simple, this module is critical because it becomes the gateway that protects registration records, verification decisions, and institutional data integrity. Figure 3 displays the press media login interface, while Figure 3 displays the administrator login interface.

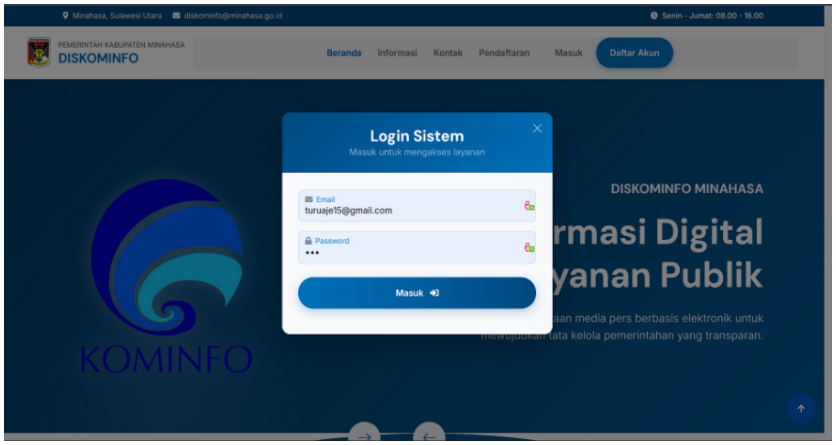

Figure 3. Admin Login Page

3) Partnership Registration Submission Interface

Once authenticated, press media users proceed to the partnership registration form, which is the central feature of the system from the applicant's perspective. This interface supports structured completion of administrative data and submission of required supporting documents according to the cooperation requirements applied by the Minahasa Regency Department of Communication and Informatics. The form is designed to guide users through required fields in a systematic order, minimizing missing data and reducing follow-up clarification requests. After the user submits the form, the system stores the application record in the database and automatically assigns an initial status of "awaiting verification." This immediate status assignment improves transparency compared to manual administration, where applicants may not know whether their

documents were received, processed, or misplaced. Functionally, this module implements the Create aspect of CRUD for partnership applications and establishes the traceable workflow necessary for administrator verification. Figure 4 presents the press media partnership registration form interface.

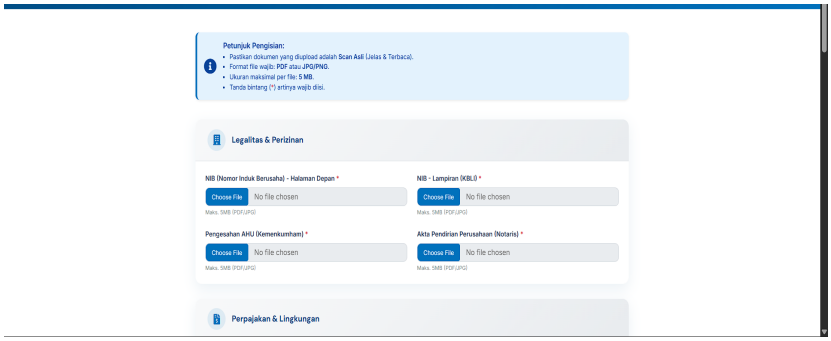

Figure 4. Media Partnership Registration Page

4) Administrative Monitoring and Verification Interfaces

On the institutional side, administrators require an interface that supports control, monitoring, and decision-making. The system implements an admin dashboard to provide a centralized overview of press media registration activity, such as the number of submitted applications, pending verification workload, and approved partnerships. This dashboard allows administrators to quickly assess operational conditions without searching through scattered records, a common limitation in manual workflows.

The verification interface is the operational core of administrative processing. Through this page, administrators review submitted data and uploaded documents, validate compliance with cooperation requirements, and decide whether an application is approved or rejected. If rejected, administrators provide notes or reasons that are stored as part of the application history. This approach improves traceability because decision outcomes are recorded consistently, and it strengthens accountability because each decision is associated with an administrator action inside the system. Only the most relevant administrator pages are emphasized here: the dashboard (monitoring) and verification page (decision execution). Figure 5 shows the Admin dashboard interface. Figure 6 shows the verification interface where administrators approve/reject submissions and record notes.

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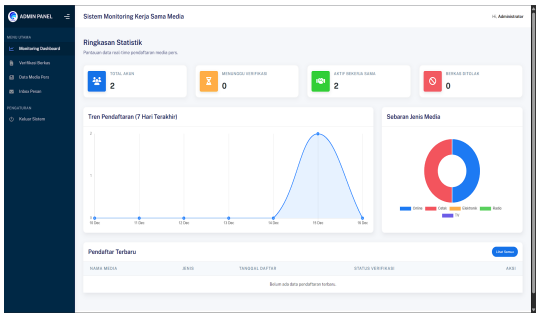

Figure 5. Admin Dashboard Page

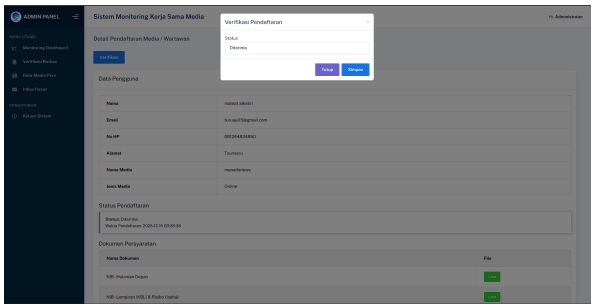

Figure 6. Media Press Verification Page

5) Verification Result Notification Output

A major transparency improvement implemented in this study is automated communication of verification outcomes. After an administrator approves or rejects an application, the system automatically delivers an email notification to the press media user. The email includes the application status and, when applicable, administrator notes explaining rejection reasons or required improvements. This reduces uncertainty for applicants and lowers repetitive administrative communication workload (e.g., responding to status inquiries), which is common in manual processes. This mechanism also supports service responsiveness because press media organizations can quickly react to the outcome—either continuing cooperation when approved or correcting requirements when rejected—without waiting for manual contact. Figure 7 presents the email notification output for verification results.

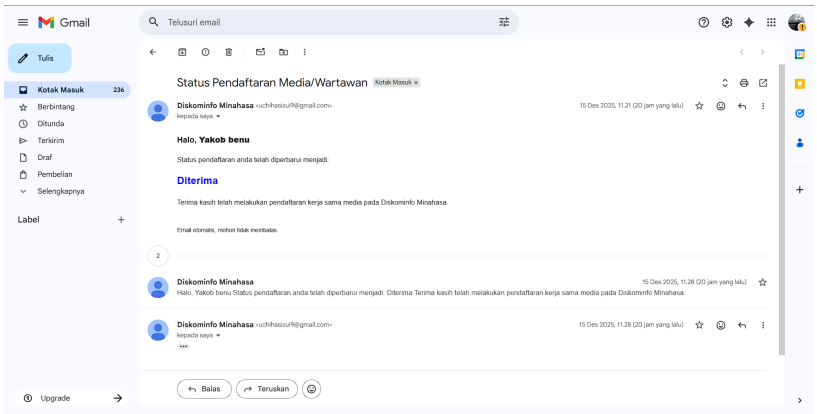

Figure 7. Email Notification of Verification Results

3.2. Application of CRUD Concepts

CRUD (Create, Read, Update, Delete) is implemented across the system to ensure consistent, reliable data management:

1) Create: applied in press media account registration and partnership application submission.
2) Read: used to display profile data, submitted applications, verification status, and administrative lists.
3) Update: used for editing user data, updating application status (awaiting verification → approved/rejected), and recording administrator notes.
4) Delete: used by administrators to remove invalid, duplicate, or unnecessary records when required by data housekeeping procedures.

This consistent CRUD implementation improves data accuracy and traceability by ensuring that records are stored, retrieved, modified, and managed in a controlled and systematic way, reducing duplication and supporting more accountable administration.

3.3. Testing Results (Black Box Testing)

System validation was conducted using Black Box Testing, focusing on whether each function produced the expected output based on given inputs (without evaluating internal program code). The results show that all critical modules operated according to functional specifications, indicating readiness for operational use in supporting press media partnership administration. Table 1 summarizes the main functional test results.

Table 1. Summary of Black Box Testing Results

Test Module	Test Scenario	Expected Output	Result
Account Registration	Submit complete valid data	Account created, data stored, success message	Pass
Account Registration Validation	Submit with missing required fields	System rejects submission, validation message shown	Pass
Login (Press Media/Admin)	Input valid credentials	Redirect to role-based dashboard	Pass
Login Validation	Input invalid credentials	Error message, access denied	Pass
Partnership Submission	Submit complete form + required documents	Application stored, status set to “awaiting verification”	Pass

Test Module	Test Scenario	Expected Output	Result
Partnership Submission Validation	Submit incomplete required data	System blocks submission and shows warning	Pass
Admin View Applications	Open list/detail of submissions	Data displayed correctly and traceable	Pass
Admin Verification (Approve)	Approve a pending submission	Status updated to "approved," history saved	Pass
Admin Verification (Reject + Notes)	Reject with notes	Status updated to "rejected," notes stored	Pass
Email Notification	Verify approve/reject triggers email	Email sent with correct status + admin notes	Pass
CRUD Operations (Admin)	Update/delete selected records	Data updated/removed as intended	Pass
Session & Logout	Logout from system	Session terminated, returned to login	Pass

The Black Box Testing results confirm that the system's core workflow—registration → submission → verification → notification—functions as intended, supporting structured administration, improved traceability, and more transparent service delivery.

3.4. Discussion

The implementation results demonstrate that the proposed web-based Press Media Partnership Registration Information System effectively addresses the core administrative problems identified in the manual workflow at the Minahasa Regency Department of Communication and Informatics, particularly delays, data duplication, limited traceability, and weak visibility of verification progress [7], [8], [23], [24]. In the manual process, registration activities tend to rely on fragmented records, repeated data entry, and inconsistent documentation practices, which increases workload and introduces operational uncertainty for both administrators and press media applicants. By digitizing the workflow into structured modules—account creation, authentication, submission, verification, and notification—the system provides an integrated

administrative pathway aligned with public service goals of efficiency, transparency, and accountability [1], [2], [3], [4], [22].

From a workflow perspective, the sequence of interfaces presented in the Results section (Figures 1–4, 6–8) reflects a complete end-to-end transformation of registration management into a traceable digital process. The registration interface (Figure 1) standardizes applicant identity data, ensuring that each partnership submission can be linked to an authenticated user account, which is essential for accountability and controlled access in public service systems [3], [4]. This directly reduces the likelihood of duplicate or inconsistent applicant records that often emerge in manual systems when different staff members record the same organization in different formats [7], [8]. The login modules for press media and administrators (Figures 2 and 3) reinforce role separation, ensuring that applicants access only submission and status-related functions, while administrators retain authority over verification and data governance. This separation supports institutional responsibility by maintaining that verification decisions remain within formal administrative control, consistent with the study design that excludes automated decision-making [23], [24].

The partnership registration form (Figure 4) is the functional center of the applicant-side workflow because it structures the submission of administrative information and supporting documents according to institutional requirements. Structuring the form into mandatory fields and controlled inputs improves data completeness and minimizes back-and-forth clarification, which is a frequent contributor to processing delays in manual administration [7], [8]. Importantly, the automatic assignment of the "awaiting verification" status after submission strengthens transparency because applicants receive immediate process feedback rather than relying on informal confirmation. This status-based tracking also improves traceability at the institutional level, since each application is recorded and can be monitored systematically rather than being embedded in physical archives or ad hoc digital files [23], [24].

On the administrator side, the dashboard and verification interface (Figures 6 and 7) operationalize a centralized management approach that supports monitoring and control of partnership administration. The admin dashboard consolidates high-level indicators (e.g., pending verification volume, approved partnerships, registered accounts), which

enables administrators to manage workload priorities and reduce delays caused by untracked submissions. In manual workflows, verification queues are often implicit—dependent on where documents are placed or who last handled them—creating bottlenecks and inconsistent service timelines. The verification module (Figure 7) directly addresses this by enabling administrators to review applications in one environment, record decisions, and store rejection notes as part of the application history. This feature strengthens accountability and institutional memory because decision rationales are recorded and can be referenced for future clarification or dispute resolution, which is difficult when decisions are communicated verbally or through unstructured messaging [5], [6], [24].

One of the most practically significant improvements is the automated verification-result notification (Figure 8). Manual service environments often generate repeated applicant inquiries regarding status updates, increasing staff workload and reducing responsiveness to new submissions. Automated email notifications reduce this communication burden while simultaneously increasing transparency and service responsiveness, since applicants are informed promptly after verification [3], [4], [22]. Additionally, including administrator notes within rejection notifications supports corrective action by press media organizations, helping them understand compliance gaps and resubmit with improved completeness rather than repeating the same errors. This aligns with the broader public service digitalization rationale of improving both internal efficiency and external user experience [1], [2], [3], [4].

The system's CRUD implementation further explains why the observed improvements are structurally sustainable rather than superficial. In this context, CRUD is not merely a technical pattern; it provides a disciplined approach to record governance by ensuring that every account and partnership registration has clear operations for creation, retrieval, updating (including status transitions), and deletion where necessary. This supports consistent data storage and retrieval, thereby reducing duplication and improving data accuracy—two dominant weaknesses of the previous manual approach [7], [8]. Most importantly, the structured status updates (Update operation) function as the backbone of traceability, allowing the institution to reconstruct the process history of each application and monitor progress systematically [22]. This is particularly relevant

in government administration, where the ability to demonstrate process transparency and accountability is part of institutional performance expectations [3], [4].

The Black Box Testing outcomes (Table 1) provide functional evidence that the system's core workflow is operationally ready and conforms to predefined requirements. All critical modules—registration, authentication, submission, verification actions, CRUD operations, and automated notifications—produced expected outputs during testing. This is an important validation point because digital administrative systems can only deliver governance improvements when reliability is ensured at the functional level. In other words, transparency and efficiency improvements depend on whether users can consistently register, submit, verify, and receive notifications without system failures or ambiguous behavior. The "Pass" results across the tested scenarios indicate that the system is stable enough for real operational deployment within the administrative scope defined by the study.

Methodologically, the use of the Waterfall model supports the implementation context of a local government institution because it emphasizes clear phases, documentation, and sequential verification of outputs [20], [21]. In this study, requirement stability is particularly important because administrative procedures, required fields, and verification responsibilities are tied to institutional policies and formal workflows. The Waterfall approach strengthens alignment between real institutional needs identified through observation, interviews, and documentation analysis [17], [18], [19] and the resulting system modules, reducing the risk of feature mismatch and improving reproducibility [14]. This also responds to a research gap where many e-government studies emphasize conceptual discussion without detailing a validated, end-to-end implementation within an actual institutional environment [12], [13].

Nevertheless, the discussion also highlights limitations consistent with the defined scope. First, the system supports administrative registration and verification but does not automate decision-making, which remains fully under administrator authority [23], [24]. While this supports accountability, it also means processing speed ultimately depends on administrator capacity and workload. Second, broader media governance features—such as performance monitoring of partnerships, content management, or advanced analytics—are intentionally excluded, leaving future opportunities for system expansion

under institutional policy control. Future enhancements could include more granular status categories, dashboard analytics for service performance reporting, and integration with broader e-government service platforms, while maintaining governance safeguards and role-based control [1], [2], [22].

Overall, the implementation and testing results support the conclusion that a structured web-based system can significantly improve administrative efficiency, data accuracy, traceability, and transparency in press media partnership registration at the local government level [3], [4], [7], [8]. By documenting the full cycle—from field-based problem identification through functional validation—this study also contributes an applied reference model for similar administrative digitization efforts in regional government environments, addressing an underexplored domain within public sector information system implementation research [12], [13], [23], [24].

4. CONCLUSION

This study implemented a web-based Press Media Partnership Registration Information System at the Minahasa Regency Department of Communication and Informatics to overcome key limitations of the previous manual process, particularly long processing times, data duplication, weak traceability, and limited visibility of verification progress. By digitizing the workflow into structured stages—account registration, authentication, partnership application submission, administrator verification, status updating, and automated email notification—the system improves the consistency of administrative handling and strengthens transparency for press media organizations during the registration lifecycle. The system applies CRUD-based data management to ensure records are stored, accessed, updated, and maintained in a controlled manner, which supports better data accuracy and reduces redundancy. Verification decisions remain fully under administrator authority, while the recorded status history and notification mechanism provide clear and timely feedback to applicants, improving responsiveness and minimizing uncertainty. Development was carried out using the Waterfall model to ensure sequential and well-documented implementation aligned with institutional procedures. Functional testing using the Black Box method confirms that all main modules operated according to predefined specifications, including registration, login, application submission, verification actions, CRUD operations, and email notifications.

Overall, the results indicate that the system is operationally feasible and effective as an administrative support tool for press media partnership registration, contributing to more efficient, traceable, and transparent local government service delivery within the defined scope.

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