

*Corresponding author: Umar Mansyuri, Faculty of Computer Science, Universitas Bina Bangsa, Serang, Indonesia

E-mail: umar.mansyuri@gmail.com

RESEARCH ARTICLE

Audit and Evaluation of the Online Information System Application at Madrasah Ibtidaiyah Negeri (MIN): Case Study of State Islamic Elementary School

Umar Mansyuri*, Hamdan, Rahadian Arief, Asep Safaatulloh, & Andika Anindya

Faculty of Computer Science, Universitas Bina Bangsa, Serang City, Indonesia.

Abstract: Website-based information systems can be utilized as a means to provide quick and accurate information. One of the madrasas that has utilized a website-based information system is MIN 7 Tangerang, which has achieved numerous accolades. On the school's website, users can obtain information about the madrasa. Due to the abundance of information provided on the website, the madrasa administration must ensure data accuracy by conducting an information system audit. The objective of the information system audit is to assess the audit findings on the website for application refinement and to evaluate the implementation of the information system audit for website maintenance at the madrasa. This research employs a qualitative descriptive method. Data collection is conducted through observation and interviews. The interviewees in this study are the auditees, specifically the administrators of the MIN 7 Tangerang website. The research findings reveal eleven audit findings on the madrasa's website, indicating existing deficiencies that require follow-up audits for further refinement and maintenance of the website. In conclusion, the research aims to ascertain audit findings for website application refinement and to evaluate the implementation of information system audit results for the maintenance of the madrasa's website.

.Keywords: Information System Audit, State Islamic Elementary School, Website

1. Introduction

The advancement of information technology has facilitated various activities in life, including in the field of education. Website-based information systems have become a crucial means to deliver information quickly and accurately, aiding in more efficient data processing while saving costs and time (U.S. Department of Education, 2020). In this digital era, information systems in madrasas are vital to support educational processes, providing comprehensive and accurate information about the madrasa's profile, administration, student affairs, and curriculum (BAU, 2020; LSU Online, 2020).

Website-based information systems can be utilized as a means to provide quick and accurate information. One of the madrasas that has utilized a website-based information system is MIN 7 Tangerang, which has achieved numerous accolades. On the school's website, users can obtain information about the madrasa. Due to the



abundance of information provided on the website, the madrasa administration must ensure data accuracy by conducting an information system audit (Smith, 2023).

Madrasah Ibtidaiyah Negeri 7 Tangerang is an example of a madrasa that has utilized a website to provide information on new student registration, graduation announcements, rescheduling, vision and mission statements, student data, achievements, and academic calendars. This website facilitates ease of access for parents and students to obtain necessary information. However, it is crucial for the madrasa to maintain the integrity and accuracy of the data displayed on the website to ensure that the disseminated information is beneficial and correct.

Despite Madrasah Ibtidaiyah Negeri 7 Tangerang leveraging information technology, there are still some shortcomings in its usage. Therefore, an information system audit of the madrasa's website is necessary to evaluate its security and effectiveness. This audit aims to refine the application so that the madrasa's website can function optimally and support the achievement of its vision, mission, and strategic objectives.

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2. Literature Review

2.1. *Basic Concepts of Audit*

Audit refers to a systematic process of objectively obtaining and evaluating evidence regarding assertions about economic activities and events. The objective is to determine whether the financial statements of an organization or company are presented fairly. This process is conducted by independent auditors who provide a professional opinion on the fairness of financial and non-financial information presented by the management of an entity.

Audit is a systematic process to obtain and evaluate evidence objectively regarding assertions about economic activities and events. (AICPA. 2021).

Audit is an objective examination of the financial statements of an organization or company with the aim of determining whether the financial statements are presented fairly. (PCAOB. 2020).

Audit is a process conducted by independent auditors to evaluate and provide a professional opinion on the fairness of financial and non-financial information presented by the management of an entity. (IFAC. 2022).

2.2. *Definition of Website Information System Audit*

Website information system audit is a systematic and independent evaluation process of controls and operations of web-based information systems to ensure security, reliability, and compliance with established policies and procedures (Laudon & Laudon, 2021). This process encompasses various aspects including data security, operational efficiency, and meeting user needs (Gelinis, Dull, & Wheeler, 2020).

According to Romney and Steinbart (2021), the primary objective of information system audit is to provide assurance that the information system functions correctly, produces accurate and reliable data, and complies with organizational policies and applicable regulations. In the context of educational websites such as Madrasah Ibtidaiyah, this audit is crucial to ensure that the information presented to students, parents, and other stakeholders is accurate and trustworthy.

According to Valacich and Schneider (2022), an information system audit systematically evaluates the effectiveness, security, and compliance of an organization's information systems to ensure they function efficiently, securely, and in line with relevant policies and regulations. Additionally, the book *Auditing Advanced Information Systems and Technologies in a Modern Digital World* emphasizes the importance of these audits in the context of increasingly complex digital systems, highlighting the role of IT auditors in assessing both financial and non-financial systems to safeguard stakeholders' interests (Wilroff-Reitsma et al., 2021).

3. Research Methods and Materials

3.1. Research Approach

This research adopts a qualitative descriptive approach to evaluate and analyze the information system audit on the website of Madrasah Ibtidaiyah Negeri 7 Tangerang. This approach is chosen because it allows the researcher to gain a deep understanding of the implementation and effectiveness of the information systems used by the madrasa.

3.2. Research Location and Subjects

The research location is Madrasah Ibtidaiyah Negeri 7 Tangerang. The research subjects include IT staff, teachers, and students who interact directly with the madrasa's website information system.

3.3. Data Collection Techniques

Data is collected through the following techniques:

1) Interviews

Conducted with IT staff and website administrators of the madrasa to gather information on the management and maintenance of the information system.

2) Observation

Direct observation of the website usage by teachers and students to assess effectiveness and usability.

3) Documentation

Collection of documents related to the madrasa's information system, including policies, procedures, and reports related to website management.

This methodology aims to provide a comprehensive assessment of the current state of the website's information system at Madrasah Ibtidaiyah Negeri 7 Tangerang, focusing on security, reliability, and alignment with organizational goals and policies.

4. Analysis

4.1. Current System Analysis

The operational procedures on the website of Madrasah Ibtidaiyah Negeri 7 Tangerang include content management, registration and admission of new students, as well as



management of announcements and the school calendar. Website administrators have access to an administrative panel to manage displayed content and information, including the madrasah's profile, administration, student affairs, curriculum, and latest news. Using the WordPress content management system, administrators can easily create, edit, and delete website pages, upload images, adjust layouts, and add hyperlinks.

Parents of prospective new students can fill out an online registration form that includes personal information and supporting documents. Administrators then list the names of registered candidates on the madrasa's website, and if accepted, prospective students receive further instructions regarding the re-registration process. Additionally, administrators manage the madrasah calendar by adding academic schedules, holidays, exams, and other important events, and post critical announcements on the announcements page. Website users can easily access the calendar and announcements to obtain information quickly and efficiently.

4.2. Preliminary Audit

The preliminary information system audit for enhancing the web-based application at MIN 7 Tangerang is conducted to understand requirements, analyze weaknesses, and plan effective improvements. As an auditor, the first step involves understanding the organization's objectives and needs through collaboration with management and stakeholders. This is followed by a deep analysis of the functionality, security, and performance of the existing application, along with an evaluation of security policies and data protection. Comprehensive testing is then conducted to identify necessary improvements, followed by drafting improvement plans and comprehensive testing plans prior to implementation. This approach aims to significantly enhance the efficiency and security of the web-based application at MIN 7 Tangerang.

4.3. Follow-up Audit

The follow-up information system audit for enhancing the web-based application at MIN 7 Tangerang is a crucial phase post-implementation. As an auditor, the initial step is to plan the audit by reviewing change documentation, defining scope, and assessing associated risks. Subsequently, the auditor gathers post-audit information including change documentation, development plans, and user feedback. A thorough evaluation is conducted on the implementation of changes, encompassing functionality, integration, performance, and application security testing. This is followed by security analysis, performance evaluation, and the compilation of an audit report detailing findings, conclusions, and recommendations for management to implement further improvements and necessary follow-up actions. This follow-up audit approach ensures that changes to the web-based application at MIN 7 Tangerang align with plans and meet expected standards.

5. Findings and Discussion

Table 1. Audit Finding 1 and Recommendation

Audit Finding	Description	Cause	Impact	Recommendation
Finding 1	The phone number of the madrasah listed on the website displays different numbers when clicked.	The phone number listed is incorrect.	Users cannot contact the madrasah via phone.	Correct the phone number to ensure it matches the actual contact number.



Figure 1. Audit Finding 1



Figure 2. Audit Finding 2

Table 2. Audit Finding 2 and Recommendation

Audit Finding	Description	Cause	Impact	Recommendation
Finding 2	The Instagram logo of the madrasah on the top and bottom of the website is non-functional and cannot be clicked.	The link to the madrasah's Instagram is not included.	Users cannot view the madrasah's Instagram from the website.	Create a link to the madrasah's Instagram that activates when the logo is clicked.

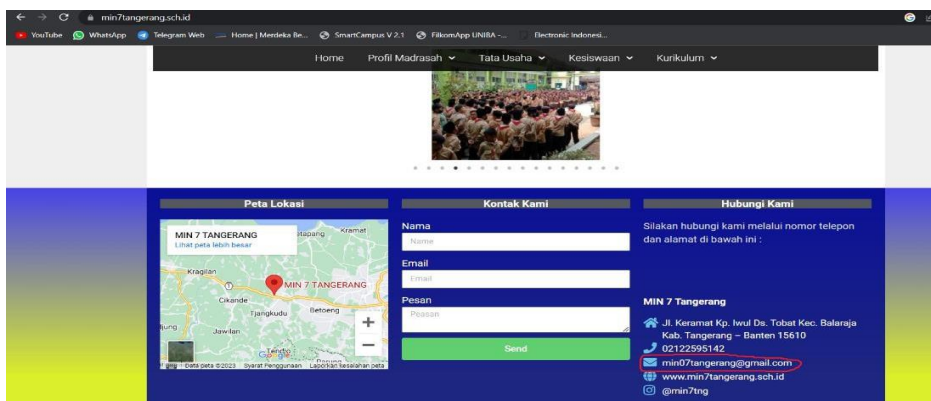


Figure 3. Audit Finding 3

Table 3. Audit Finding 3 and Recommendation

Audit Finding	Description	Cause	Impact	Recommendation
Finding 3	The email logo of the madrasah at the bottom of the website is non-functional and cannot be clicked.	The link to send an email to the madrasah is not included.	Users cannot send an email to the madrasah.	Create a link to the madrasah's email that activates when the logo is clicked.

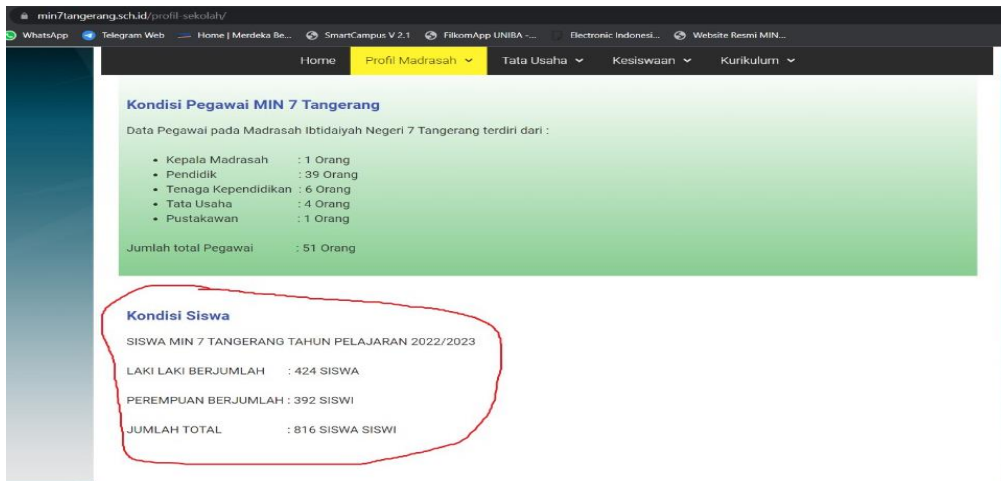


Figure 4. Audit Finding 4

Table 4. Audit Finding 4 and Recommendation

Audit Finding	Description	Cause	Impact	Recommendation
Finding 4	The website logo of the madrasah at the bottom of the website is non-functional and cannot be clicked.	The link to the madrasah's website is not included.	Users cannot open the website when the logo is clicked.	Create a link to the madrasah's website that activates when the logo is clicked.



Figure 5. Audit Finding 5

Table 5. Audit Finding 5 and Recommendation

Audit Finding	Description	Cause	Impact	Recommendation
Finding 5	The “Students” submenu has duplicate content found in the Madrasah Profile.	Created duplicate content due to lack of ideas.	Users see the same content twice in different submenus, reducing effectiveness.	Remove “Student Conditions” content from the Madrasah Profile.

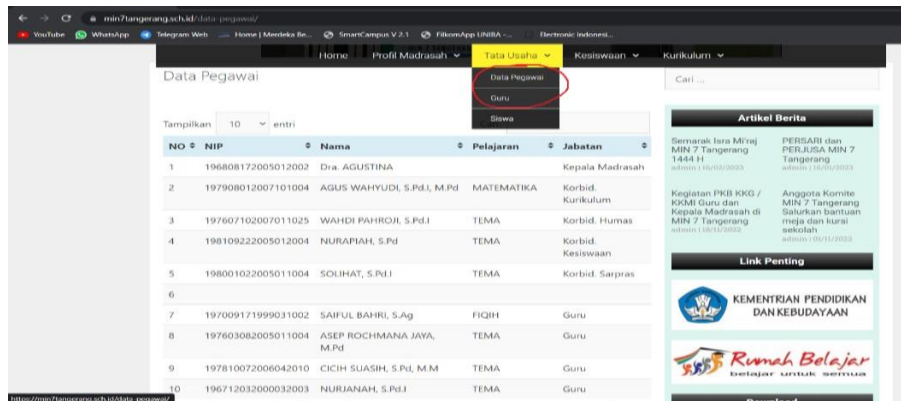


Figure 6. Audit Finding 6

Table 6. Audit Finding 6 and Recommendation

Audit Finding	Description	Cause	Impact	Recommendation
Finding 6	The “Employee Data” and “Teachers” submenus contain identical content, rendering having two submenus with the same content ineffective.	Content not differentiated between the two submenus.	Ineffectiveness when viewed by users.	Create distinct content for each submenu.

6. Conclusion

This research audited and analyzed the information system and web-based applications at MIN 7 Tangerang Madrasah with the aim of enhancing functionality, security, and usability. Audit findings identified several necessary improvements, such as adjusting non-linked phone numbers, improving social media logo functionality and non-functional contact links, and optimizing menu structures by removing ineffective duplicate content. These steps are crucial to ensure that the web-based applications and information systems operate more effectively and meet user expectations.

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