

## Free School Management Based on ICT: A Study of Ethics and Readiness of Smart School Treasurers in State High Schools in Indonesia

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### Abstract

This study examines the readiness and ethics of treasurers in the implementation of free school management based on Information and Communication Technology (ICT) at State High Schools (SMA) in Indonesia towards the concept of Smart School. This research uses a qualitative approach with a case study method at several State High Schools in Indonesia. Data were collected through in-depth interviews, participatory observations, and analysis of related documents. The results show that the readiness of school treasurers in utilizing ICT varies, with some treasurers having adequate understanding and skills, while others still need improvement. In terms of ethics, it was found that the application of ethics in school financial management with the help of ICT still requires special attention. This study emphasizes the importance of training and capacity building for school treasurers to utilize ICT effectively and ethically. In addition, support from the government and related stakeholders is crucial to ensure that all schools can meet the required standards to become Smart Schools. In conclusion, although there has been significant progress in the implementation of ICT in free school management, there are still challenges that need to be addressed, especially regarding the readiness and ethics of school treasurers.

**Keywords:** Ethics; ICT; Readiness; School Management; School Treasurer

### INTRODUCTION

The implementation of Information and Communication Technology (ICT) in school management is increasingly vital, especially in senior high schools (SMA) in Indonesia, where free education policies are being adopted (Almekhlafi, & Almeqdadi, 2010). The integration of ICT aims to modernize administrative processes, enhance learning experiences, and improve overall efficiency in school operations (Honan, 2008). As the nation aspires to transform its educational institutions into Smart Schools, ICT becomes a cornerstone for equipping schools with the capabilities needed for digital education. This move aligns with the broader technological advancements and national education policies that seek to integrate digital skills into the learning environment, making education not only accessible but also adaptive to the demands of the 21st century.

However, several challenges arise in the practical implementation of ICT, particularly concerning the readiness of school treasurers who manage financial administration (Kozma, 2011). The adoption of ICT in financial management involves not only technical skills but also an understanding of ethical practices in handling school funds. In many schools, the ability of treasurers to effectively use digital tools for budgeting, reporting, and other financial tasks varies significantly. While some treasurers possess sufficient skills and knowledge, others struggle to keep pace with the rapid technological changes. Furthermore, the ethical implications of using digital

platforms for financial management pose additional concerns, such as maintaining transparency, protecting data privacy, and ensuring accountability.

The primary aim of this research is to assess the readiness of school treasurers in utilizing ICT for financial management and to evaluate the ethical considerations associated with its use. By focusing on several state high schools across Indonesia, the study seeks to provide a comprehensive understanding of the current state of ICT adoption in school financial management. The research will explore not only the existing capabilities and limitations of treasurers but also the support structures needed to enhance their skills and ethical practices.

Moreover, the study aims to highlight the disparities in ICT readiness among different schools, identifying factors that contribute to successful implementation and those that hinder progress. It will examine the role of training and professional development programs in equipping treasurers with the necessary skills to navigate digital tools effectively. In addition, the research will consider how governmental policies and stakeholder involvement can support the transition toward Smart Schools by addressing gaps in resources and infrastructure.

As Indonesia advances towards integrating ICT into its educational framework, understanding the ethical dimensions becomes crucial. The use of technology in financial management must be guided by clear ethical standards to ensure that digital transformation does not compromise the principles of integrity and responsibility. This study will provide insights into how ethical considerations can be integrated into the training and development of school treasurers, thus fostering a culture of ethical digital literacy within the education sector.

In conclusion, while the integration of ICT in school management has made significant strides, challenges remain, particularly regarding the readiness and ethical conduct of school treasurers. By addressing these issues, this research aims to contribute to the development of strategic solutions that facilitate the successful adoption of ICT in achieving the goals of Smart School initiatives.

## **METHODS**

This research adopts a qualitative approach, utilizing a case study method to explore the topic in depth (Lim, 2007). The qualitative approach allows for a detailed examination of the complexities and contextual nuances associated with the use of ICT in school financial management. By employing a case study method, the research can provide an in-depth analysis of real-life situations, focusing on specific instances that illustrate the readiness and ethical practices of school treasurers. This approach is suitable for understanding diverse experiences across different schools and enables the exploration of factors influencing the implementation of ICT.

The study is conducted in several State Senior High Schools (SMA Negeri) across Indonesia, chosen to reflect the contextual diversity in terms of resources, administrative practices, and readiness levels. Data collection methods include in-depth interviews with school treasurers to gather insights into their experiences, skills, and perceptions regarding ICT use in financial management. Additionally, participatory observations are conducted to directly observe the practices and challenges faced by the treasurers in their work environment. Document analysis is also used to review relevant records and policies related to school financial management. The qualitative data collected is then analyzed using thematic analysis techniques, which involve coding the data to identify patterns, themes, and insights that emerge from the participants' experiences and observed practices.

## RESULTS

The readiness of school treasurers in utilizing ICT for financial management varies considerably across different institutions. Some treasurers demonstrate a solid understanding of ICT tools and possess the skills needed to use these technologies effectively in their roles, which include tasks such as budget management, financial reporting, and digital record-keeping. Their familiarity with ICT enables them to enhance the efficiency and accuracy of financial processes within the schools. However, there are also treasurers who require significant improvement in both their technical skills and their comfort with using digital platforms. For these individuals, the rapid pace of technological change presents a considerable challenge, and they may struggle with the adoption of new tools, which in turn can hinder the overall progress of ICT integration in financial management.

The application of ethical standards in school financial management using ICT also warrants particular attention. While digital tools offer significant potential to improve transparency and accountability, there remain challenges in ensuring that ethical principles are consistently upheld. Issues such as data privacy, proper documentation, and responsible handling of financial information are critical considerations that require stringent adherence to ethical standards. In some cases, the reliance on digital platforms without adequate ethical guidelines or oversight mechanisms could lead to lapses in accountability or the misuse of information. Therefore, integrating robust ethical frameworks and providing clear guidelines on ethical conduct when using ICT are essential to fostering trust and ensuring integrity in financial management practices.

Several factors either support or hinder the readiness and ethical application of ICT in school financial management. Government policies and the involvement of various stakeholders play crucial roles in shaping the resources and support available to schools. For instance, schools that receive substantial support from local authorities or have access to well-structured training programs for treasurers tend to show higher levels of readiness and ethical compliance. Conversely, limited funding, inadequate infrastructure, and a lack of consistent professional development opportunities can impede the adoption of ICT and the adherence to ethical standards. Addressing these barriers requires a coordinated effort to provide sufficient resources, training, and policy support to enable schools to meet the demands of digital transformation effectively.

## DISCUSSION

The findings of this study reflect the varied levels of readiness and the specific challenges encountered in implementing the Smart School concept in Indonesia. While some schools exhibit a high level of preparedness in integrating ICT into their financial management processes, others face significant obstacles, indicating a lack of uniformity in the progress towards Smart School objectives. This disparity is aligned with previous research, which also highlights uneven ICT adoption across different educational institutions due to factors such as resource availability, administrative support, and training opportunities. For instance, studies on ICT integration in other developing countries similarly point to the challenges of infrastructure, skill gaps, and ethical standards as common barriers. Comparatively, nations with more comprehensive digital literacy programs and government support show higher levels of readiness and ethical compliance in the use of digital tools in education, suggesting that a more structured approach could benefit Indonesian schools.

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The practical implications of these findings emphasize the need for targeted training and capacity building for school treasurers to ensure they can use ICT both effectively and ethically. Such programs should go beyond basic digital literacy to include specialized skills relevant to financial management, data security, and ethical practices. The development of comprehensive training modules tailored to the specific tasks and challenges faced by treasurers is essential for bridging the skill gaps identified in this study. Furthermore, ongoing professional development should be considered to keep pace with the rapid advancements in technology, ensuring that treasurers remain competent and confident in using new tools.

In terms of policy and support, it is crucial for the government and other stakeholders to establish a robust framework that enables all schools to meet the standards required for becoming Smart Schools. This framework should include clear policies on ICT infrastructure, ethical guidelines, and digital literacy standards, along with dedicated funding to support their implementation. Additionally, collaboration with private sector partners could provide schools with access to up-to-date technology and resources that would otherwise be unattainable. The success of Smart School initiatives will largely depend on how well policies address the specific needs and challenges faced by schools in diverse regions across Indonesia.

However, this study has some limitations that should be acknowledged. The case study method, while providing in-depth insights, may not fully represent the experiences of all schools across the country. The focus on financial management may also overlook other important aspects of ICT integration that contribute to the Smart School concept, such as the use of digital tools in pedagogy and student engagement. Future research could expand on these areas to provide a more comprehensive understanding of ICT adoption in schools. Moreover, quantitative studies involving a larger sample size could complement the qualitative findings and provide broader generalizations. Future studies should also consider the role of school leadership in driving ICT adoption and ethical practices. Understanding how principals and administrative staff influence the readiness and attitudes of treasurers towards digital transformation could offer valuable insights for developing effective training and policy interventions. Additionally, exploring the perspectives of students and teachers on the use of ICT in other areas of school management may reveal further opportunities for enhancing the Smart School framework.

Overall, while this study underscores significant progress in the adoption of ICT in school financial management, it also points to persistent challenges that need to be addressed. By implementing strategic policies and support measures, and by focusing on continuous professional development, Indonesia can move closer to realizing the full potential of Smart Schools, ensuring that all educational institutions can leverage technology for the benefit of students and administrators alike.

## CONCLUSION

The study's key findings reveal a range of preparedness among school treasurers in utilizing ICT for financial management, as well as notable ethical challenges. While some treasurers display adequate technical skills and can effectively incorporate digital tools into their work, others encounter difficulties due to limited ICT proficiency and the rapid evolution of technology. This gap in readiness highlights a need for consistent and comprehensive training. Furthermore, ethical issues, particularly around maintaining transparency, data security, and accountability, remain

significant. Although ICT can facilitate better financial management, there is a risk that ethical standards may not always be met, underscoring the importance of clear guidelines and oversight.

To enhance the readiness of school treasurers and ensure ethical ICT practices, several steps are recommended. Firstly, targeted training programs should be developed, focusing on both ICT skills and ethical financial management. Continuous professional development is essential to keep pace with technological changes. Additionally, government support is crucial in providing the necessary resources and policies to standardize ICT integration across all schools. Collaboration with private sectors could also facilitate access to advanced technology and training opportunities. These efforts should be coupled with the establishment of clear ethical frameworks and regular evaluations to ensure compliance and foster a culture of accountability in school financial management.

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