

Digital Administration Management In Improving Efficiency At Alhidayah Kalisari Islamic Boarding School

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Article Info

Article history:

Accepted: 27 April 2026

Publish: 30 April 2026

Keywords:

Digital Administration Cashless,
Efficiency Islamic Boarding School,
Smart Hida

Abstract

This study aims to describe the effectiveness of implementing digital administration through the Smart Hida (Cashless System) at the Alhidayah Kalisari Islamic Boarding School. feature expansion, a qualitative method with a participatory case study approach. Data collection was carried out from April 16 to 24, 2026, through observation and in-depth interviews with the central treasurer and administrative members. The results showed that the digitalization of financial transactions had a significant positive impact. The cashless system effectively minimizes student indiscipline, as the absence of physical cash eliminates their motivation to buy snacks outside the boarding school without permission. For parents, this system provides transparency and daily control over their children's expenses, eliminating the need to physically visit the school to pay fees. From the management side, the manual administrative burden previously done in physical books is replaced by an automatic database and a top-up system. Furthermore, the integration of 30 internal merchants with a mutually agreed maintenance fee system creates a sustainable business ecosystem. However, this implementation faces challenges regarding users' digital literacy, so feature expansion needs to be done gradually.

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1. INTRODUCTION

The dynamic development of information and communication technology in the 21st century has disrupted various sectors of life, including the Islamic education ecosystem in Indonesia. Islamic boarding schools, historically known as traditional religious educational institutions with conventional management approaches, are now faced with the demands of the times for institutional modernization. This transformation is inevitable so that Islamic boarding schools can remain relevant, accountable, and professional in serving the community. One of the most crucial areas requiring immediate modernization is financial administration and student supervision. At the Alhidayah Kalisari Islamic Boarding School, the urgency of improving this managerial system is being addressed through an innovative approach, namely the implementation of a wireless-based digital administration system called Smart Hida (Cashless System).

The fundamental reason that drove the Alhidayah Kalisari Islamic Boarding School to transition from a conventional system to a digital one is rooted in the various latent problems

associated with cash circulation within the boarding school environment. For years, financial management at this boarding school relied solely on manual record-keeping methods. The boarding school treasurer had to maintain stacks of ledgers to record every transaction, from tuition payments (SPP), building fees, to student pocket money deposits. This process was highly dependent on the physical presence of the students' guardians. Each visit by a student guardian to the boarding school was always accompanied by a long and tedious administrative queue process. Besides being time-inefficient, this manual system was highly susceptible to human error (human error), loss of physical proof of payment, and the risk of discrepancies between the records of the administrators and the guardians of the students.

From a psychological and disciplinary perspective, students' free cash holdings often catalyze violations of Islamic boarding school rules. Direct access to physical cash provides students with "economic power" to conduct transactions outside the supervision of administrators. A common occurrence in the field is an undisciplined practice known among students as "rabbing"—the act of sneaking out of the Islamic boarding school's territorial boundaries without permission from security or the caretaker department. The primary purpose of this activity is generally consumptive and non-educational, such as buying cigarettes at a nearby village stall, renting a game console (PlayStation), or simply spending time at a cafe. When students have cash, the motivation to break these rules increases dramatically because they have a valid means of exchange in the outside world. Conventional supervision through security patrols is often ineffective in addressing this problem if the root cause—unrestricted financial access—is not cut off.

Furthermore, from the perspective of parents or guardians of students, the distance makes it difficult for them to control their children's spending patterns. The distribution of monthly allowances in cash at the beginning of the month often leads to wasteful behavior, with students spending their monthly allowance within just one or two weeks. The inability of guardians to directly intervene in this spending pattern often leads to unrest and dissatisfaction with the Islamic boarding school's service system.

Various previous studies have examined digitalization efforts in Islamic boarding schools from various perspectives. Soleh (2024) found that the administrative transformation of modern Islamic boarding schools in Indonesia is still uneven, with most Islamic boarding schools lacking a digital system that integrates financial functions and student supervision. Aedi and Amaludin (2022), in their study of the Islamic Boarding School Administration Information System (SIAP) at Sirojuth Tholibin Islamic Boarding School, showed that modernizing the management system significantly improved data accuracy and administrative efficiency. Meanwhile, Niswa's (2021) study, which examined the e-money landscape in Islamic boarding schools, concluded that implementing cashless payments has significant potential to curb uncontrolled student consumer behavior, but its implementation is still hampered by low digital literacy among student guardians. Furthermore, Irbad and Susyanti (2024), who evaluated the cashless payment system at Nurul Jadid Islamic Boarding School, identified that the biggest challenge lies not in the technical aspects, but rather in the user adaptation process and the readiness of the server infrastructure to accommodate massive data volumes. From this series of findings, there is a research gap (research gap) that have not been answered, namely the absence of an in-depth study that simultaneously analyzes the impact of the cashless system on three dimensions at once: the clerical efficiency of the treasurer, control of the indiscipline behavior of students, and

the formation of an internal micro-business ecosystem of Islamic boarding schools in one integrated study framework.

To untangle the tangled threads of these various problems and respond to existing research gaps, the management of the Alhidayah Kalisari Islamic Boarding School introduced Smart Hida—a digital administration system designed not merely as an electronic payment instrument, but as an integrated control ecosystem. Through digitalization, the Islamic boarding school strives to create absolute financial transparency: guardians are given the authority to monitor and limit daily expenses, the central treasurer can summarize data in seconds without having to write in a ledger, and the room for students to commit violations outside the boarding school is minimized due to the absence of physical exchange. Therefore, this research is very important to be conducted to evaluate the extent to which the effectiveness of the Smart Hida system truly impacts operational efficiency and improves the quality of governance within the Alhidayah Kalisari Islamic Boarding School environment.

2. METHOD

Research Design

This research was designed using a qualitative approach with a case study type. The choice of case study design is considered very appropriate. Ustadz, this research intends to highlight a specific, contemporary phenomenon, and is tied to a particular location context that has unique characteristics, namely the implementation of the Smart Hida digital administration system at the Alhidayah Kalisari Islamic Boarding School. The qualitative approach allows researchers to explore the meaning, experiences, and social dynamics behind the implementation of the technology, rather than simply presenting statistical figures.

Presence of Researchers and Research Locations

This field research was conducted within the Alhidayah Kalisari Islamic Boarding School. Observations focused on the administrative center (treasurer's room), the canteen/shop business units, and the student interaction area. Data collection was conducted intensively for eight days, from April 16, 2026, to April 24, 2026. In this study, the researcher's presence was not as a passive observer (non-participant observer), but rather as a participant observer. The researcher was organically and functionally involved in the project structure by serving as one of five admin members. This emic (inside) involvement gave the researcher privileges to access sensitive technical data, observe server issues in real-time, and experience firsthand the dynamics of communication between the central administrators, merchant members, and student guardians.

Research Subjects and Data Sources

The primary data sources in this qualitative research are words and actions obtained directly from informants. The main key informant in this study is Ustadz Faiz, who holds a dual strategic position: as Treasurer of the Alhidayah Islamic Boarding School and as the Central Admin (Top Level Administrator) of the Smart Hida system. In addition to key informants, researchers also obtained secondary and tertiary data through observations of the behavior of 30 members who act as merchant operators in the Islamic boarding school business unit, as well as by analyzing qualitative feedback provided by the guardians of students (stakeholders) during the transition period of the application launch.

Data Collection Techniques

In accordance with qualitative research principles, data collection is carried out using three main instruments:

1. In-depth Interview: Researchers conducted an open-ended, semi-structured interview with Ustadz Faiz. Questions aimed to explore the comparison of workload before and after the system was implemented, the technical operations of top-up and recapitulation, and management's evaluation of the system's overall performance.
2. Participant Observation: Researchers directly monitored the smooth running of transactions at the point-of-sale points (canteen and shop) manned by the 30 members. Researchers also directly observed the confused responses and adaptation of the students' guardians in the early days of the application's activation, and noted a decrease in students' intention to commit violations outside the area.
3. Documentation Study: Researchers reviewed digital archives, captured screenshots of the application interface, reviewed the Smart Hida user guide (tutorial), and examined the hierarchical structure of role division (Central Admin, Member Admin, Member, Stakeholder) determined by the management of the Islamic boarding school.

Data Analysis Techniques and Validity Checking

The collected qualitative data were analyzed using the Miles and Huberman interactive model, which includes three stages: (1) Data Reduction, namely sorting and summarizing interview results and observation notes that are relevant to the focus of efficiency and discipline; (2) Data Display, namely organizing data into systematic text narratives and comparative tables for easy understanding; and (3) Conclusion Drawing. To ensure the credibility and validity of the research results, the researcher applied the source triangulation technique—namely, comparing information from Ustadz Faiz with the field reality experienced by admin members and merchants.

3. RESULTS AND DISCUSSION

Based on data collected during eight days of participatory observation and in-depth interviews, the implementation of the Smart Hida digital administration system at the Alhidayah Kalisari Islamic Boarding School has resulted in comprehensive transformations across multiple sectors. To clarify the efficiency disparity between the two systems, Table 1 compares administrative work variables before and after the internal Smart Hida implementation, as well as mitigating technological challenges.

1. Cash Devaluation and Its Impact on Student Indiscipline

The most significant finding from the implementation of this cashless system is its effectiveness as a preventative security instrument. In the past, students often circumvented Islamic boarding school security by sneaking out (ngencileng). Their primary purpose beyond the boarding school fence was not to commit serious crimes, but rather to engage in juvenile delinquency mediated by cash, such as playing PlayStation consoles at village rentals, hanging out at cafes, or simply buying snacks and smoking at roadside stalls beyond the reach of the ustadz's (teacher's) supervision.

The implementation of Smart Hida drastically devalued cash within the Islamic boarding school. Because all transactions required digital accounts, which could only be read by the school's internal merchant scanners, students no longer held banknotes or coins. Researchers conducted participant observation and discovered an interesting psychological fact: the loss of this physical currency automatically demotivated students from leaving without permission. They realized that even if they managed to escape security, they would have no purchasing power at all in the village stalls that still used cash.

This created a kind of "invisible fence" that confined the students' movements within a safe zone managed by the boarding school. The boarding school environment gradually became much more conducive and orderly. Dormitory administrators and security personnel acknowledged that their patrol workload had been significantly reduced, as the financial system organically forced students to adhere to the boarding school's boundaries.

2. Bureaucratic Transformation and Automation of Central Treasurer Performance

The second focus of this research is to measure the extent to which digital systems reduce the complexity of financial bureaucracy. Interview data with Ustadz Faiz, the treasurer of the Islamic boarding school, provides a historical perspective on the workload in the manual era. Ustadz Faiz explained that every time the students' visit (*sambangan*) was scheduled, the treasurer's room was always filled with long lines of guardians seeking to pay their monthly Islamic dues.

depositing building fees, or simply filling their children's pocket money.

"In the past, recapitulation was a grueling process. We only had a lined notebook and a pen. Every time a student's guardian came to deposit pocket money or pay tuition fees, I had to find the student's name from hundreds of lists, manually record the amount, and then create receipts for each student. This process was incredibly time-consuming and had a high risk of missing data or miscalculations," said Ustadz Faiz in an interview session (April 20, 2026).

The integration of the Smart Hida application radically changes this work paradigm through two superior features: Top Up and Database Recapitulation. The Top Up feature allows pocket money to be topped up wirelessly from home. Students' guardians simply transfer funds through their respective bank's payment gateway, and the balance is automatically credited to the students' digital accounts without requiring manual intervention from the treasurer. Meanwhile, the Database Recapitulation feature functions as autonomous bookkeeping. Every microtransaction in the canteen (such as buying a drink) to the macro transaction (semester fee payment) is recorded in real time with clear time, amount, and subject tags. Treasurers no longer need to laboriously write in ledgers; they simply export data from the server to instantly generate accurate and transparent periodic financial reports.

To clarify the efficiency disparity between the two systems, Table 1 is presented below, which compares the administrative work variables before and after the implementation of Smart Hida.

Table 1. Comparison of the Manual Administration System and the Smart HIDA Digital System

No	Assessment Indicators	Manual System (Notebook)	Digital System (Smart Hida)
1	Recording Media	Physical ledgers and paper receipts. Vulnerable to damage, loss, or misplacement.	Cloud server database. Data is encrypted and permanent.
2	Transaction Entry Time	Time-consuming. Requires the physical presence of the student's guardian, queues, and manual input by the treasurer.	Instant. Parents can top up remotely via bank transfer or e-wallet at any time.
3	Parental Supervision	Weak. Parents don't know how much pocket money their child has spent in a day, their child's transaction history, and they can't limit what they spend it on.	Powerful. Parents can monitor spending per day.
4	Preparation of Financial Reports	Very slow. It takes days to recap thousands of lines of handwriting, prone to <i>human error</i> .	Automatic. The system performs calculations in real-time, and reports can be downloaded in seconds.
5	Student Money Security	There is a high risk of it being lost, stolen by fellow students, or dropped.	Very secure. Funds are stored in a virtual account protected by a user authentication system.

3. The Dynamics of Parents' Responses: From Culture Shock to Appreciation

The implementation of technological innovation always faces cultural resistance (cultural shock) in the initial phase. According to data from the admin member team, in the first days of the system's launch, approximately 60% of the guardian population of students showed confusion. This difficulty was not driven by system rejection, but rather by a generation gap and varying levels of digital literacy. Many guardians, who come from rural areas, were unfamiliar with operating financial applications. In response to this situation, the Islamic boarding school management swiftly assisted by distributing illustrated tutorial modules and establishing a technical assistance post via WhatsApp, staffed by admin members.

The remaining 40% of parents—who are more familiar with smartphone technology—were able to adapt very quickly. After overcoming the initial learning curve, the feedback received by the Islamic boarding school turned into overwhelmingly positive appreciation. Testimonials from parents highlighted two interface features they considered the most helpful:

First, there's the Daily Limit feature in the "Pay" menu. This feature is available exclusively (customized) on the student version of the app interface. The system gives each parent the prerogative to set a daily spending limit for their child. This flexibility is crucial because every family has different financial capabilities. Parents who want their child to live frugally can limit transactions to a maximum of IDR 15,000 per day, so the remaining balance cannot be used even if the student wants to spend it. This is a highly effective financial education tool for students.

Second, the "Pay Administration" feature. Before this system existed, guardians often entrusted large sums of cash (to pay tuition or building fees) to their students after the holidays. The risk in practice was that the money would be used for personal expenses by the students or lost during the trip. With this feature, guardians allocate and pay mandatory boarding fees directly from their app interface, and the funds are locked and transferred directly into the boarding school's cash account. The money doesn't pass through the hands of students or their consumer accounts, thus 100% ensuring the institution's financial integrity.

4. Islamic Boarding School Business Incubator through Maintenance Fee Scheme

The Smart Hida architecture not only facilitates the relationship between guardians and treasurers but also builds microeconomic infrastructure within the Islamic boarding school. Currently, the system has integrated 30 entities acting as "Members" or merchants. These merchants represent various Islamic boarding school-owned enterprises (Islamic boarding schools), such as food canteens, student cooperative minimarkets, and laundry services. They are equipped with point-of-sale software connected directly to the main server to handle digital payments from students.

To ensure the sustainability and independence of this digital ecosystem, management has established a business model based on administrative fee deductions. Every transaction made with a merchant is subject to a certain percentage margin. This policy is not enforced in an authoritarian (top-down) manner, but rather is managed through a consensus approach. Each member is given the freedom to negotiate an agreed-upon fee percentage with the central administrator (Central Admin). This percentage adjustment is based on the business scale, product profit margins, and the payment capacity of each merchant, so as not to stifle emerging micro-businesses within the pondok.

The accumulated fee deductions from each transaction are not classified as personal profits for the administrators, but rather are managed as an endowment fund for maintenance costs. These funds are used specifically to rent high-spec server space (hosting), pay IT staff (programmers), and fund research and development of future Smart Hida application features. This circular economy model confirms that the Alhidayah Kalisari Islamic Boarding School has successfully achieved financial independence and technological independence simultaneously.

5. Mitigating Infrastructure Challenges and Phased Release Strategy

Implementing large-scale technology in a short time inevitably leads to technical disruptions. Early in the project, specifically during the database initiation phase, the Smart Hida system experienced an operational failure in the form of a server downtime. Researchers noted that this incident stemmed from an instruction from the leadership to immediately bring all student data online. As a result, administrators from various subdivisions simultaneously uploaded thousands of student, guardian, and academic profile data files. This massive volume of data

simultaneously overloaded the cloud server's memory, ultimately temporarily cutting off application connectivity.

The boarding school's management responded to this crisis with appropriate managerial measures. The central authority for data migration was temporarily removed from the regular administrators and fully delegated to a dedicated IT team from the Smart Hida application developers. The expert team then carried out a gradual data injection process using computational scripts directly into the database core (backend). This escalation proved effective in quickly normalizing server load.

Learnings from the server incident, combined with an awareness of the slow digital literacy rate among guardians and staff, prompted management to adopt a phased feature rollout strategy. Management recognizes that a pesantren is like a small country with various bureaucratic departments (finance, security, cleanliness, madrasah diniyah, and care). Digitizing all these bureaucratic functions at once would trigger a cognitive overload. Therefore, the system is currently focused exclusively on developing the financial and operational features of the Islamic Boarding School-Owned Enterprise. Development of features integrating madrasah class attendance or reporting student security violations has been postponed until all levels of users are fully prepared and proficient in operating the basic foundation of Smart Hida.

4. CONCLUSION

Qualitative field research at the Alhidayah Kalisari Islamic Boarding School demonstrated that the transition to digital administration is not merely a change in work instruments, but rather a fundamentally impactful shift in institutional culture. First, the restoration of technology-based discipline through a cashless society ecosystem has proven effective in reducing student indiscipline by quelling their purchasing power outside the Islamic boarding school ecosystem, thereby severing the motivation for "ngencleng" practices. Second, revolutionary clerical efficiency has occurred, with a real-time database recapitulation system successfully reducing administrative work time from days to seconds with absolute accuracy. Furthermore, this system optimizes transparency for families through a customizable "Daily Limit" feature that educates students to be less wasteful and ensures the security of deposits without having to travel long distances. Finally, a symbiotic, independent business ecosystem has been created through the involvement of 30 internal merchants with a maintenance fee scheme that forms a circular economy structure to independently finance the Islamic boarding school's technology development.

Based on this evaluation, several strategic recommendations were proposed for further development. Central management is advised to maintain a phased rollout strategy to maintain server infrastructure stability before integrating with other modules. Furthermore, a sustainable, inclusive digital literacy program is needed, such as providing regional language simulation videos to minimize cognitive barriers for older students' guardians. Finally, management is expected to improve infrastructure capabilities by allocating maintenance funds for migration to a dedicated server-based cloud database with an auto-scaling system to safeguard the system from potential future overload.

5. ACKNOWLEDGMENTS

The author would like to express his deepest gratitude to the leadership of the Alhidayah Kalisari Islamic Boarding School and its management, especially the Treasurer and Administration departments, for their permission and assistance with data access during the research process. He also expresses his gratitude to the Pringsewu Islamic Boarding School (STIT) for providing academic support in the preparation of this article. Finally, he would like to thank all the guardians of the students and internal merchants who volunteered to serve as informants to facilitate the smooth data collection process.

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