From Manual to Digital: How Assalafie Babakan Mobile is Revolutionizing Administrative Systems in Islamic Boarding Schools?

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Abstract:

This study aims to analyze the implementation of the Assalafie Babakan Mobile application in managing administration in an Islamic boarding school. This application is designed to improve efficiency and transparency and facilitate communication between Islamic boarding school administrators, guardians of students, and students. In this study, a qualitative approach was used to understand the application's process. Data were collected through interviews, observations, and documentation. The data analysis process was carried out in several stages: data reduction, data presentation, analysis of findings, and conclusion. The study results showed that the implementation of this application succeeded in improving the management of Islamic boarding school administration, facilitating communication, and monitoring student development. This application also provides convenience in managing student data more efficiently and in an organized manner. This application positively contributes to the digitalization process in Islamic boarding schools, especially in more structured administrative management. The implication of this study is the importance of digital transformation in Islamic boarding school educational institutions to improve managerial and operational quality. This study also provides insight for other educational institutions that want to develop similar digital systems to improve administrative management and communication with related stakeholders.

Keywords: *Mobile Application, Administration, Digitalization, Communication*

Abstrak:

Penelitian ini bertujuan untuk menganalisis penerapan aplikasi Assalafie Babakan Mobile dalam pengelolaan administrasi di pondok pesantren. Aplikasi ini dirancang untuk meningkatkan efisiensi, transparansi, dan memperlancar komunikasi antara pengurus pesantren, wali santri, dan santri. Dalam penelitian ini, pendekatan kualitatif digunakan untuk memahami lebih mendalam proses penggunaan aplikasi tersebut. Data dikumpulkan melalui wawancara, observasi dan dokumentasi. Proses analisis data dilakukan dengan beberapa tahapan, yaitu data reduction, data presentation, analisis temuan, dan penarikan kesimpulan. Hasil penelitian menunjukkan bahwa penerapan aplikasi ini berhasil meningkatkan pengelolaan administrasi pesantren, memperlancar komunikasi, dan mempermudah pemantauan perkembangan santri. Aplikasi ini juga memberikan kemudahan dalam mengelola data santri secara lebih efisien dan terorganisir. Aplikasi ini memberikan kontribusi positif terhadap proses digitalisasi di pesantren, khususnya dalam pengelolaan administrasi yang lebih terstruktur. Implikasi

dari penelitian ini adalah pentingnya transformasi digital dalam lembaga pendidikan pesantren untuk meningkatkan kualitas manajerial dan operasional. Penelitian ini juga memberikan wawasan bagi lembaga pendidikan lainnya yang ingin mengembangkan sistem digital serupa guna memperbaiki pengelolaan administrasi dan komunikasi dengan stakeholders terkait.

Kata Kunci: *Aplikasi Mobile, Administrasi Pesantren, Digitalisasi, Komunikasi*

INTRODUCTION

Along with the rapid development of the Industrial Revolution 4.0, digitalization has penetrated various sectors (Ansari & Almunawar, 2022; Attaran, 2023; Malik et al., 2022), including traditional educational institutions such as Islamic boarding schools. Islamic boarding schools, as Islamic educational institutions in Indonesia, have long used manual and traditional teaching and administration methods (Arrohmatan et al., 2022; Badrun, 2024). Over time, the need for a more efficient and transparent administration system is increasingly urgent (Damaševičius et al., 2023; Hader et al., 2022).

Although theories about the digitalization of educational administration have been widely discussed, the application of advanced technology in Islamic boarding schools, especially in data management and communication between the Islamic boarding school and parents, is still minimal. This creates a significant gap between existing theories and practical implementation. Digitalization should facilitate the management of student data and finances and increase parental involvement in monitoring their children's development (Hung, 2022; Li et al., 2022). Without fundamental changes in the field, Islamic boarding schools will have difficulty competing with other educational institutions that have adopted technology more widely. Therefore, evaluating and implementing technology that can support Islamic boarding school administration is essential to be more modern, effective, and transparent.

Although digitalization in education continues to grow, Islamic boarding schools in Indonesia still face significant challenges in adopting technology, especially in administration. Based on observations at the Assalafie Cirebon Islamic Boarding School, although the Assalafie Babakan mobile application has been implemented to assist the administration process, many parents of students do not fully understand the benefits and how to use this application. Some parents even refuse to use this application due to ignorance or discomfort with technology. This shows a gap between expectations and the reality of implementing digital technology in Islamic boarding schools. In addition, financial management that was initially carried out manually and face-to-face must now switch to a digital system, which requires understanding and readiness from all parties involved. This also shows the need for adequate training to improve digital literacy for Islamic boarding school managers and parents of students so that this application can be accepted and used optimally.

Several previous studies have explored the application of technology in Islamic boarding school management. One of them is a study conducted by Baharun et al. (2021) and Zamahsari et al. (2023) regarding the use of the PEDATREN (Pengelolaan data pesantren) application in improving the quality of services in Islamic boarding schools. This study shows that digital applications such as PEDATREN effectively overcome various challenges related to modernization in Islamic boarding schools, including student data management and payments. An integrated information system helps Islamic boarding schools face the increasing demands of society for transparency and administrative efficiency (Darwanto et al., 2024; Faizin, 2024). The results of this study suggest that Islamic boarding schools continue to develop and improve digital infrastructure to support better administrative processes that are responsive to community needs. However, despite the positive results, this study also underlines the importance of human resource readiness in supporting the use of technology, which is a challenge in its application in Islamic boarding schools.

Other studies by Aini et al. (2023), Setiawan & Ekaningsih (2025), and Zamroni et al. (2023) state the importance of technology applications in improving the quality of Islamic boarding school services. This application allows faster and more efficient access to information, including academic management and financial administration. The results of other studies also show that the biggest challenge in implementing digital applications in Islamic boarding schools is the lack of trained human resources (HR) and infrastructure that does not fully support the use of this technology (Agarwal et al., 2022; Thite, 2022; Zhang & Chen, 2024). Therefore, this study emphasizes the importance of ongoing training for Islamic boarding school managers and parents of students to ensure that they can utilize technology optimally.

Based on the above studies, this study offers novelty, focusing on implementing the Assalafie Babakan Mobile application in managing Islamic boarding school administration. This study explores the implementation of this application at the Assalafie Islamic Boarding School, Cirebon, and its impact on the management of Islamic boarding school administration. This application has been proven to increase the efficiency and transparency of Islamic boarding school administration by enabling the management of student data and financial transactions that are more organized and can be accessed in real-time by the Islamic boarding school and parents of students. In addition, this application facilitates a more practical and secure digital payment system, reducing dependence on manual payment systems that often cause problems. However, the main obstacle is the lack of understanding and adaptation from parents of students and Islamic boarding school managers to this technology. The success of the implementation of this application is highly dependent on adequate HR training and effective communication between the Islamic boarding school and the parents of students so that they can feel the maximum benefit from using this application.

Applying digital technology in Islamic boarding school administration can bring many benefits. Still, it also leaves challenges, primarily related to the readiness of HR and acceptance from the community, especially parents of students. Therefore, this study provides recommendations for Islamic boarding

schools to continue developing training for managers and parents of students and improving technological infrastructure to support the successful implementation of digital applications. With the proper support from all parties, digital transformation in Islamic boarding schools can run more smoothly and effectively, bring significant changes in the quality of Islamic boarding school services, and strengthen public trust in Islamic boarding schools as modern and trusted educational institutions.

RESEARCH METHOD

This study uses a qualitative method with a case study approach. The case study was chosen because it allows for an in-depth exploration of implementing the Assalafie Babakan Mobile application at the Assalafie Cirebon Islamic Boarding School. Qualitative methods are used to understand phenomena in their natural context, where researchers act as the main instrument in data collection and analysis (Sugiyono, 2022). Through this approach, the study describes how the Assalafie Babakan Mobile application is implemented, the challenges faced in its use, and its impact on the Islamic boarding school administration system.

This research was conducted at the Assalafie Islamic Boarding School in Babakan Village, Ciwaringin District, Cirebon Regency, West Java. The selection of this location was based on several main reasons. First, this Islamic boarding school has adopted a digital administration system through the Assalafie Babakan Mobile application, making it a relevant object for research. Second, this Islamic boarding school has many students, so it can provide an accurate picture of the effectiveness and challenges of digitizing the Islamic boarding school administration. Third, implementing this application still faces obstacles, especially regarding human resource readiness and acceptance from users, such as students and guardians of students.

The data in this study were obtained from various sources, including primary and secondary data. Primary data were obtained through interviews with Islamic boarding school managers, application operators, and Assalafie Babakan Mobile application users, including students, guardians of students, and student mentors. In addition, direct observation was conducted to see how the application was used in daily activities at the Islamic boarding school. Secondary data were collected through related documents, such as Islamic boarding school administration reports, application usage guides, and relevant literature on digitization in Islamic educational institutions.

Data collection techniques were carried out through three main methods, namely observation, interviews, and documentation. After the data was collected, analysis was carried out using the Miles and Huberman approach (Bingham, 2023; Miles et al., 2020), which involves four stages: data reduction, data presentation, analysis of findings, and conclusion. Data reduction is carried out by sorting and filtering relevant information, while data presentation aims to organize information in a form that is easy to understand. Furthermore, findings are analyzed to identify patterns and relationships in the data obtained so that valid conclusions can be drawn regarding implementing the Assalafie Babakan Mobile application at the Assalafie Islamic Boarding School in Cirebon.

RESULT AND DISCUSSION
Result
Assalafie Babakan Mobile Application in Administration Management

The Assalafie Babakan Mobile application was born as a digitalization solution for the Assalafie Islamic Boarding School as an adaptation step to the increasingly rapid development of technology. Previously, an unorganized system often hampered administrative management in Islamic boarding schools, which required innovation to bring Islamic boarding schools into the digital era. From here came the idea of developing an application that could overcome the problem of unsystematic administrative management and simplify the communication process between Islamic boarding schools and guardians of students.

The main objective of this application is to create a Management Information System that manages Islamic boarding school financial and personnel data digitally. Thus, recording student data, billing, and payments can be carried out more efficiently, both cashless and non-cash. This application also offers convenience for parents to monitor their children's development at the Islamic boarding school, providing transparency and closer interaction between Islamic boarding school administrators and guardians of students.

In daily operations, Assalafie Babakan Mobile is managed directly by the Assalafie Islamic Boarding School. This application is managed by trained staff and internal supervisors who are tasked with ensuring that the application runs well and provides maximum benefits. Every day, this application is used by guardians and administrators of Islamic boarding schools via mobile devices, providing convenience and ease in monitoring various student activities at the boarding school.

For students' guardians, this application provides extraordinary convenience. Parents can find out students' progress directly by accessing an account connected to their child's name. Meanwhile, this application facilitates transactions for students using SaQu-ku, a digital pocket money system that connects parents' accounts with student cards. Using a card scanned with a barcode, students can make transactions quickly, from purchasing daily necessities to paying fees in the Islamic boarding school environment.

More than that, this application provides various features that facilitate the management of Islamic boarding schools, such as monitoring the development of students, which includes daily activities, grades, and health conditions. In addition, payment transparency allows guardians to check the status of monthly payments, transaction history, and other bills. Parents with more controlled daily spending limit settings can also monitor pocket money management. This application also provides access to religious information, such as religious study schedules, Al-Quran materials, and various worship services that can be accessed at any time.

This application at the Pondok and the madrasah also makes recording students' grades easier. Monitoring students' attendance, directly integrated with the application system, also makes attendance more organized. Payment of daily bills, from credit and electricity tokens to BPJS, can be done through this application. Zakat, waqf, and infaq can be monitored directly by the pesantren.

With this application, the Assalafie Islamic Boarding School is stepping into the digitalization era and changing how the pesantren interact with the guardians of students, increasing operational efficiency and providing better services. Assalafie Babakan Mobile is a step forward in managing a more modern, structured, and responsive pesantren to the needs of the times.

In practice, the planning, implementation, and evaluation of the Assalafie Babakan Mobile application at the Assalafie Islamic Boarding School goes through structured and synergistic stages to create an effective and efficient system in managing the administration of the pesantren. Each stage is carefully designed so that this application can provide maximum benefits for Islamic boarding school administrators, guardians of students, and the students themselves.
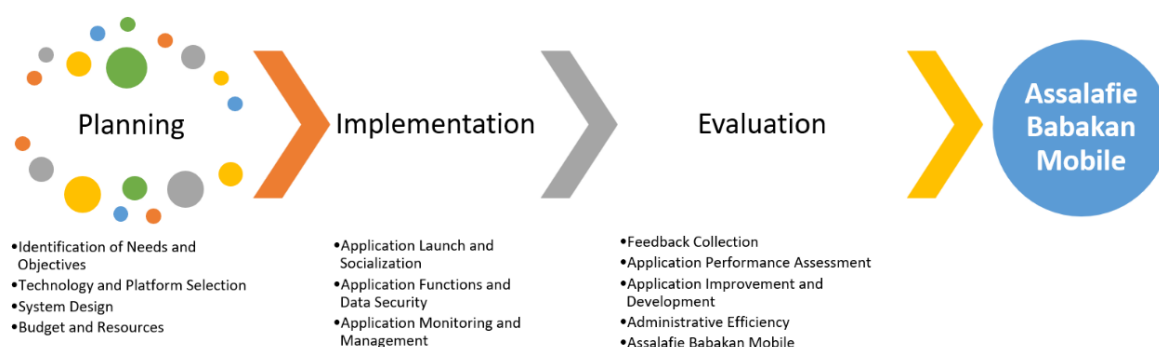

Figure 1. Assalafie Babakan Mobile Application in Managing Islamic Boarding School Administration

In the planning stage, all the needs and objectives of the application were discussed carefully. The Islamic boarding school administrators identified various problems, such as difficulties in recording student data, financial management, and challenges in communication between the Islamic boarding school and student guardians. From this analysis, the idea emerged of building an application to overcome these problems and improve the existing managerial system. All features, such as recording student data, cashless payments, monitoring student development, and delivering religious information, were designed to meet the needs of Islamic boarding schools in the digital era. The planning process also involved selecting the right technology to ensure Islamic boarding school administrators and student guardians could easily access this application.

After thorough planning, the implementation stage began. In this phase, the application was introduced to all parties involved. Collaboration with application developers facilitated technology integration into Islamic boarding school operations. Islamic boarding school administrators and responsible staff were trained to use this application properly, while student guardians were given guidance on accessing and utilizing the application's features. This application's implementation is aimed at introducing new technology and ensuring that all parties involved can use the application optimally. This application is designed to be user-friendly, making it easier for users who are unfamiliar with technology. After the application runs, the evaluation stage becomes equally important. The evaluation is carried out by collecting feedback from the boarding school administrators, guardians of students, and the students themselves. Has this

application succeeded in simplifying administrative management? Do the existing features meet user needs? This evaluation aims to assess whether the application can increase transparency, efficiency, and accountability in the management of the boarding school. Based on the evaluation results, application development and improvements are carried out to align with existing needs. Feature updates, speed improvements, and appearance improvements are part of the continuous improvements made to maintain the quality of services the Assalafie Islamic Boarding School provides.

Overall, in practice, careful planning, proper implementation, and continuous evaluation make Assalafie Babakan Mobile an administrative application and a tool that helps improve the quality of Islamic boarding school management and strengthens the relationship between Islamic boarding schools, guardians of students, and students. This application is a step forward in realizing Islamic boarding schools that are more modern and responsive to the needs of the times.

Table 1. Implementation Indicators of the Assalafie Babakan Mobile Application

Indicators	Interview	Informant
Application Planning	"This application is designed to support management and speed up the administration process of Islamic boarding schools."	Application Management Staff
Application Implementation	"The guardians of students are very helped, they can monitor their children's development at any time."	Islamic Boarding School Administrator
Application Usage Evaluation	"The follow-up of this application is very good, all data is easily accessible and real-time."	Internal Supervisor, Assalafie Islamic Boarding School

Based on Table 1, several important points regarding implementing this application at Assalafie Islamic Boarding School can be analyzed. In terms of application planning, interviews with management staff showed that this application was designed with a concrete goal to improve the previously poorly organized Islamic boarding school administration management system. With this application, it is hoped that the administration process will be more effective and efficient, facilitating the management of student data and finances and cashless and non-cash payments.

At the application implementation stage, the Islamic boarding school administrators assessed that this application had a positive impact, especially in improving communication between student guardians and the Islamic boarding school. This shows that this application is beneficial from an administrative perspective, strengthens the relationship between the Islamic boarding school and student guardians, and allows parents to monitor their children's development more directly and transparently.

Internal supervisors assessed that this application ran well because all student data was easily accessible and constantly updated in real time. This success shows that this application has succeeded in increasing transparency and ease in data management, as well as allowing Islamic boarding school managers to manage information more efficiently and in an organized manner.

Implementing the Assalafie Babakan Mobile application at the Assalafie Islamic Boarding School has succeeded. This application provides convenience in terms of administration and opens up space for improving the quality of Islamic boarding school services for parents. In the evaluation, this application was considered effective in managing student data, payments, and communication between administrators and guardians of students.

Based on the data obtained, the pattern of use of this application leads to increased operational efficiency at the Islamic boarding school. The use of the application has been proven to facilitate Islamic boarding school administration, provide better transparency, and strengthen parental involvement in monitoring the activities and development of their children at the Islamic boarding school. This application also supports more significant efforts to digitize Islamic boarding schools and technological advances.

Impact of the Assalafie Babakan Mobile Application

Implementing the Assalafie Babakan Mobile application at the Assalafie Islamic Boarding School has positively influenced the management of the Islamic boarding school administration. Based on interviews with various stakeholders, it is clear that this digital transformation has brought tangible benefits in the efficiency of managing the Islamic boarding school administration. Before this application was introduced, the Islamic boarding school administration's management was still manual, time-consuming, and unorganized. This application focuses on improving the management system regarding administration, communication, and financial transparency.

Table 2. Impact of the Assalafie Babakan Mobile Application in the management of Islamic boarding school administration

Indicators	Interview Excerpt Results	Informant
Administrative Management Efficiency	"Before the application, the administration of the Islamic boarding school was done manually, now it is more efficient and organized."	Leader
Ease of Financial Management	"The application makes it easier to input financial administration data, the process that used to take a long time is now faster and more organized."	Management
Transparency of Bookkeeping and Finance	"Parents can now monitor the management of students' money, from monthly payments to daily shopping transactions."	Guardian of Students
Ease of Monitoring of Student Activities	"The application makes it easier for parents to monitor their children's activities at the boarding school and school, as well as manage pocket money."	Guardian of Students
User Adaptation to Technology	"The main challenge is user adaptation, especially for guardians of students who are new to this application."	Application Manager
Limitations of Active User Participation	"There are some guardians of students who are less active in using this application, which is a challenge in increasing participation."	Application Manager
Challenges for Students in Using	"Sometimes there is a delay in the transfer of pocket money because the adaptation process takes time."	Students

Table 2 shows that implementing the Assalafie Babakan Mobile application significantly positively impacts the management of Islamic boarding school administration. One of the leading indicators affected is administrative efficiency, which previously took a long time with a manual system. It can now be done faster and more organized, as conveyed by Mr. Himawan, the head of the Islamic boarding school.

This application also makes managing Islamic boarding school finances easier, which previously also required more time and effort. Mrs. Kholifah, the administrator of the Islamic boarding school, said that with this application, inputting financial administration data has become easier, faster, and more structured.

Furthermore, this application positively impacts financial transparency, where parents of students can clearly monitor monthly payments and student shopping transactions, as expressed by Mrs. Nuriyah. In addition, parents can also monitor their children's activities at the Islamic boarding school and school through this application, making it easier to manage pocket money and increasing parental involvement in students' lives.

The implementation of this application also faces challenges. One is user adaptation to technology, especially for guardians of students who are not yet accustomed to using the application. According to Mr. Sa'id, the application manager, this adaptation requires more time and effort. In addition, the level of user participation is still a problem, with around 900-1000 guardians of students not yet actively using the application. This is a challenge in itself in increasing full parental involvement. From the data, it can be understood that implementing this application has significantly impacted the efficiency of managing Islamic boarding school administration. This application makes the previously manual process faster, more organized, and more transparent. In terms of financial management, this application makes it easy to monitor transactions, from monthly payments to managing pocket money.

However, although this application provides many benefits, there are some obstacles in terms of technology adaptation. Some guardians and students initially had difficulty operating this application, slowing their participation. This reflects that acceptance of new technology requires time and effort to introduce and educate users.

Overall, implementing the Assalafie Babakan Mobile application at the Assalafie Islamic Boarding School has positively impacted administrative management. This application helps improve efficiency, financial transparency, and ease of monitoring student activities. However, challenges in terms of technology adaptation and user participation levels remain obstacles that need to be overcome to maximize the benefits of this application.

The data patterns obtained show that although this application positively impacts administrative efficiency, financial transparency, and ease of monitoring, there are challenges in terms of user participation and adaptation to new technology. Increasing training and socialization needs to be addressed so guardians and students can optimally utilize the application. Application updates and better technical support can also accelerate this adaptation process.

Discussion

The results of this study indicate that implementing the Assalafie Babakan Mobile application at the Assalafie Islamic Boarding School significantly impacts the efficiency of Islamic boarding school administration, financial transparency, and ease of communication between guardians and Islamic boarding school administrators. This is in line with the findings in the literature, which state that information technology in educational management can accelerate the administration process and increase transparency (Adeusi et al., 2024; Chen et al., 2022; Musolin et al., 2024). This application optimizes the previously manual administrative process. It strengthens the relationship between Islamic boarding schools and students' guardians through easy access to information that can be accessed anytime.

However, although this application has succeeded in increasing efficiency and transparency, this study also found significant challenges regarding technology adaptation by users, especially guardians of students. This finding is similar to several existing studies, which state that the implementation of information systems in educational institutions is often hampered by resistance from users who are still not used to new technology (Friedman & Ormiston, 2022; Gkrimpizi et al., 2023; Kumar et al., 2025). At Assalafie Islamic Boarding School, this challenge is seen in the lack of active participation of guardians of students who have not fully utilized the application and delays in using certain features. In this case, the Diffusion of Innovation theory, which explains the process of technology adoption, states that innovations will be adopted at different rates depending on the characteristics of individuals and groups (Gkrimpizi et al., 2023; Marks & Al-Ali, 2022). Users more open to technology will adopt it more quickly, while those less familiar with technology will take longer to adapt (Gibson, 2022; Liu & Miguel-Cruz, 2022; Marks & Al-Ali, 2022). This is reflected in this study, where most guardians of students have adopted this application, but some groups still have difficulty adapting.

Despite these challenges, this study also shows that the application has improved the quality of Islamic boarding school services, especially regarding monitoring student activities and more transparent financial management. This finding supports the theory of the Technology Acceptance Model (TAM), which states that the perception of ease of use and benefits felt by users are key factors in technology adoption. (Musa et al., 2024; Nnaji et al., 2023; Toraman, 2022). In the context of Islamic boarding schools, the benefits guardians feel in the form of transparency and ease in monitoring the development of their children play a significant role in increasing acceptance of technology.

The contribution of the results of this research is significant in showing that digitalization not only accelerates the administrative process but also strengthens the relationship and involvement of parents in the education of their children in Islamic boarding schools. This research provides valuable insights for Islamic boarding school educational institutions that want to adopt technology to improve management and services and provides an overview of the challenges that need to be faced in adopting technology in Islamic boarding schools. In addition, the results of this research can be a reference for the development of other Islamic

boarding school applications, which can be adjusted to the needs and characteristics of users in Islamic education environments.

CONCLUSION

Implementing the Assalafie Babakan Mobile application at the Assalafie Islamic Boarding School has significantly impacted the management of the Islamic boarding school administration. This application has succeeded in increasing efficiency in the administrative process, financial transparency, and facilitating communication between Islamic boarding school administrators and guardians of students. With this application, student data management, payment recording, and monitoring of student activities become more structured and organized. Parents of students also find it easy to monitor their children's development, providing more control over students' finances through a more transparent digital payment system. However, this study has several limitations. The study's limited scope only at Assalafie Islamic Boarding School means that these findings cannot be generalized to other Islamic boarding schools. In addition, the difficulty of user adaptation to the application, especially for guardians of students unfamiliar with technology, is a challenge in implementation. Some guardians of students are also not yet active users of this application, which affects how practical this application is in improving overall efficiency. Thus, this study provides an important picture of the challenges of digitalization in Islamic boarding schools. However, further research with a broader scope and more varied methods is needed to evaluate the long-term impact of implementing this application in Islamic boarding schools.

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