Implementation of Smart Card Application to Improve Payment Transparency and Monitor Student Development from The Maqashid Syariah Perspective

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A R T I C L E   I N F O

A B S T R A C T

This study explores the effectiveness of the Smart Card application as a digital innovation in the payment and student monitoring system at the Darul Hikmah Islamic Boarding School in Pekanbaru, with an in-depth analysis through the lens of Ibn Asyur's maqashid sharia. The main objective is to assess the application's contribution to financial transparency, student behavior monitoring, and its compliance with sharia principles in the context of modern Islamic education. Using qualitative methods based on in-depth interviews with stakeholders such as the principal, teachers, students, parents, and administrative staff, as well as analysis of related literature, this study reveals that the Smart Card successfully increases the efficiency of non-cash transactions, minimizes the risk of data loss, and enables real-time monitoring that supports student discipline. However, challenges such as high administrative costs and technical limitations (e.g., long queues and network) still hamper optimization. From the perspective of Ibn Asyur's maqasid sharia, this application embodies maqasid al-'ammah (public welfare through justice and trustworthiness), maslahah daruriyyah (protection of wealth), hajiyyah (ease of life), and tahsiniyyah (formation of noble morals), while also supporting maqasid al-khasah in educational transactions. In conclusion, Smart Card is an effective tool for the integration of technology and sharia, although improvements are needed to fully achieve maximum benefits in Islamic boarding school education.

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A B S T R A K

Penelitian ini mengeksplorasi efektivitas aplikasi Smart Card sebagai inovasi digital dalam sistem pembayaran dan monitoring siswa di Pondok Pesantren Darul Hikmah Pekanbaru, dengan analisis mendalam melalui lensa maqashid syariah Ibnu Asyur. Tujuan utama adalah menilai kontribusi aplikasi ini terhadap transparansi keuangan, pengawasan perilaku siswa, dan kesesuaiannya dengan prinsip syariah dalam konteks pendidikan Islam modern. Menggunakan metode kualitatif berbasis wawancara mendalam dengan stakeholder seperti kepala sekolah, guru, siswa, orang tua, dan staf administrasi, serta analisis literatur terkait, penelitian ini mengungkap bahwa Smart Card berhasil meningkatkan efisiensi transaksi non-tunai, meminimalkan risiko kehilangan data, dan memungkinkan monitoring real time yang mendukung kedisiplinan siswa. Namun, tantangan seperti biaya administrasi yang mahal dan keterbatasan teknis (misalnya antrian panjang dan jaringan) masih menghambat optimalisasi. Dari perspektif maqashid syariah Ibnu Asyur, aplikasi ini mewujudkan maqasid al-'ammah (kemaslahatan umum melalui keadilan dan amanah), maslahah daruriyyah (perlindungan harta), hajiyyah (kemudahan hidup), dan tahsiniyyah (pembentukan akhlak mulia), sekaligus mendukung maqasid al-khasah dalam muamalah pendidikan. Kesimpulannya, Smart Card merupakan alat efektif untuk integrasi teknologi dan syariah, meskipun perbaikan diperlukan agar sepenuhnya mencapai kemaslahatan maksimal dalam pendidikan pesantren.

INTRODUCTION

Education is a crucial foundation for the development of personality and human civilization. The world of education is experiencing dynamic development, from subject matter and learning systems to management. One of the oldest educational institutions in Indonesia is the Islamic boarding school (pesantren). Pesantren are among the oldest and most influential, particularly in the development of Islamic religious knowledge. Before the arrival of the Dutch colonialists, pesantren had a strong presence in the archipelago (Endang Turmudi, 2008). Islamic boarding schools (pesantren) serve not only as religious educational institutions but also as centers for social, economic, and cultural development. With the changing times, Islamic boarding schools face increasingly complex challenges, one of which is the development of digitalization in education.

One such Islamic boarding school experiencing rapid growth in the region is the Darul Hikmah Islamic Boarding School in Pekanbaru, which has thousands of students under the auspices of the Nur Iman Pekanbaru Foundation. It offers five levels of education, from kindergarten to vocational high school. Darul Hikmah Islamic Boarding School continues to innovate to improve the efficiency and quality of its educational services by utilizing modern technology such as smart cards to support its operational activities, particularly in administration, attendance recording, and student financial management (Santono & Sadiyono, 2019).

Furthermore, a lack of transparency makes it difficult for parents to monitor their children's spending at the Islamic boarding school. Pocket money is given in cash, and without any controls, it is often lost and overspent. Real-time information about student attendance is also difficult for parents to access. This problem is also encountered at Al-Fatah Islamic Middle School, where student attendance and grade information is only available in Excel files and only communicated to parents when report cards are distributed, without a system that provides real-time and transparent academic information about student progress, attendance, and behavior at school (Suryadithia, 2019).

To address this issue, Darul Hikmah Islamic Boarding School in Pekanbaru collaborated with Bank Syariah Indonesia (BSI) to create a digital application called Smart Card. Darul Hikmah Islamic Boarding School began implementing the Smart Card system in 2023, initially at Darul Hikmah Vocational School (SMKS). This application features a digital tuition payment system, payment reminder notifications, digital attendance, and cashless transactions for purchases such as food, stationery, and other necessities at the canteen and cooperative. Parents can top up their balances through the application with an administration fee of IDR 2,500 per transaction.

This application aligns with Islamic principles that emphasize transparency and accountability. This is in accordance with the word of Allah SWT in Surah Al-Baqarah verse 282:

يَا أَيُّهَا الَّذِينَ آمَنُوا إِذَا تَدَايَنتُم بِدَيْنٍ إِلَىٰ أَجَلٍ مُّسَمًّى فَاكْتُبُوهُ ﴿٢٨٢﴾

"O you who believe! When you carry out a debt and receivable transaction for a specified time, then you should write it down" (Surah. Al-Baqarah: 282).

This verse emphasizes the importance of recording and transparency in every transaction to prevent misunderstandings, negligence, or fraud in the future. This principle serves as a strong foundation for the implementation of digital systems such as Smart Cards, which guarantee the transparency and accuracy of financial data. Although these applications offer various advantages, their implementation in the field has not been fully effective. Based on field observations, it was found that some students still carry and use cash for transactions at school, and many students still do not discipline themselves in using Smart Cards for class attendance, indicating that the main goal of digitizing school finances has not been fully achieved.

This study aims to provide a comprehensive understanding of the use of Smart Card applications in the context of educational institutions, specifically at the Darul Hikmah Islamic Boarding School. First, this study attempts to analyze how the application's implementation can increase transparency in the school payment process. Furthermore, this study aims to examine the Smart Card application's role in monitoring student progress. Through the integration of academic data, attendance, and daily activities, this application has the potential to be an effective instrument in supporting a more measurable and targeted educational process. This study examines the application's implementation through the perspective of Maqasid Sharia

according to Ibn Asyur. This approach is used to assess whether the use of this technology is in line with the values of maslahah, such as protecting property, improving the quality of education, and strengthening ethical values in the management of educational institutions.

The benefits of this research are expected to provide constructive recommendations for Darul Hikmah Islamic Boarding School and Bank Syariah Indonesia in optimizing the use of the Smart Card application. The research findings can be the basis for decision-making to improve service quality, strengthen operational efficiency, and ensure that the application implementation truly provides tangible benefits for the institution, students, and parents. Therefore, it is important to conduct research that analyzes the implementation of the Smart Card application in increasing transparency and monitoring of finances and student development from the perspective of Ibn Asyur.

RESEARCH METHOD

This research adopts a qualitative approach through field research, which is also referred to as empirical research, as it emphasizes direct engagement with real-life settings and social phenomena (Lexy J. Moleong & Surjaman, 2014). The type of research employed is a case study. According to Yin (2014), a case study is the most appropriate research strategy when the research questions focus on explaining "how" or "why" a particular phenomenon occurs, as it enables an in-depth and contextualized understanding of the case being examined. This approach is particularly relevant for exploring the implementation, effectiveness, and value-based dimensions of the Smart Card application within an educational institution.

Informants in this study were selected using purposive and snowball sampling techniques based on clearly defined criteria. A total of 18 informants participated in the research, consisting of 1 principal, 3 administrative staff members (TU), 4 teachers, 6 students, and 4 parents. The inclusion criteria for informants were as follows: (1) individuals who are directly responsible for the Smart Card application, such as the principal; (2) individuals who prepare reports and manage the Smart Card application, including administrative staff (TU) and teachers involved in its technical operation; (3) individuals who possess comprehensive knowledge of the application's daily implementation, such as homeroom teachers; and (4) users of the Smart Card application, namely students and their parents. These criteria were established to ensure that the data collected reflected multiple perspectives and provided a comprehensive understanding of the Smart Card application from managerial, operational, and user viewpoints.

The research instruments consisted of in-depth interviews, observation, and documentation aimed at assessing the effectiveness of the Smart Card application. The interview technique used was unstructured (unstandardized) interviews, allowing flexibility and depth in exploring informants' experiences, perceptions, and interpretations. Examples of key interview questions included: "How transparent is the management and reporting system of the Smart Card application for students and parents?", "How is monitoring conducted to ensure the Smart Card system is used in accordance with school rules and objectives?", and "In what ways does the implementation of the Smart Card application reflect the principles of maqāṣid al-sharī'ah, such as fairness, accountability, and protection of students' rights?". Interviews were conducted at SMKS Darul Hikmah, with each session lasting approximately 15 to 20 minutes. All interviews were audio-recorded and transcribed verbatim for analytical purposes.

In addition to interviews, direct field observations were conducted to capture actual practices related to the use of the Smart Card application, including technical procedures, patterns of interaction between users and administrators, and forms of monitoring that were not always explicitly conveyed through verbal explanations. Relevant documents, such as school

regulations, usage reports, and administrative records related to the Smart Card application, were also examined to strengthen data triangulation.

The study was conducted over a three-month period, from January to March 2024. This research duration allowed sufficient time for repeated observations, follow-up interviews, and in-depth engagement with informants, thereby enhancing the credibility and richness of the data collected.

Qualitative data were analyzed using an inductive approach. Data analysis was carried out continuously throughout the research process, from data collection to conclusion drawing. The analysis followed four main stages: data collection, data reduction, data display, and conclusion drawing or verification. In the final stage, the findings were systematically interpreted and linked to relevant theoretical frameworks, particularly concepts of effectiveness, transparency, monitoring, and maqāṣid al-sharī'ah as articulated by Ibn Ashur, in order to ensure analytical rigor and theoretical coherence.

RESULTS AND DISCUSSION
Implementation of the Smart Card Application at Darul Hikmah Vocational School

This Smart Card application, as shown in the image, is designed to provide convenience, efficiency, and security in the school payment system and student activities within the Islamic boarding school environment. Through the Smart Card, transactions in the canteen, cooperative, and tuition payments are conducted cashlessly, with parents able to monitor all transaction history directly through the application on their respective devices. In addition, the card also functions as a student ID, a digital attendance tool, and a means of communication between the school and parents.

Other research shows that cashless payment systems in educational institutions can reduce cash circulation, increase transaction security, and make it easier for parents to monitor their children's pocket money usage. As explained in a study on the cashless system at the Igasar Foundation school cooperative, payments using e-money or QR codes "can reduce the circulation of cash in the school environment and make it easier for parents to control their children's pocket money." (Gusrion, 2018). These findings are relevant to the goal of implementing Smart Cards at SMKS Darul Hikmah Pekanbaru, which aims to reduce money circulation, which often results in lost funds, and to control students' pocket money to create transparency for parents.
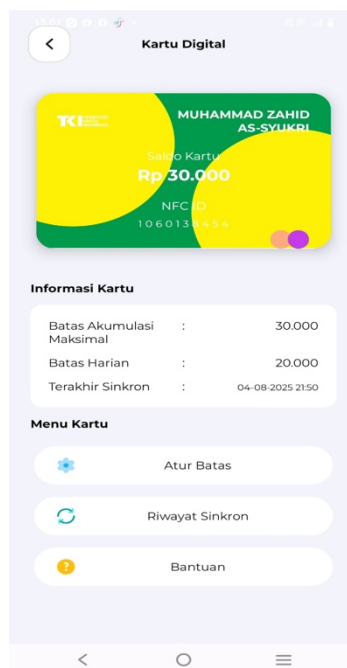
Figure 1. Smart Card Application

Based on an interview with Ustadz Amrullah, the principal of SMKS Darul Hikmah Pekanbaru, he explained that the application's implementation serves not only administrative purposes but also teaches students to be more responsible and focused in their use of money. He stated:

"This school aims to provide an educational experience that's up to date while still upholding Islamic values. With the Smart Card, we want children to learn discipline and avoid wasteful spending, and parents can also directly monitor their activities," (Amrullah, interview, November 6, 2025).

According to him, the collaboration with Bank Syariah Indonesia is a strategic step taken by the school to provide a secure financial system that aligns with Sharia principles. The use of this digital system also reduces the circulation of cash within the school environment, which previously often led to complaints such as lost student funds or lack of regular financial reporting.

This approach aligns with the principles of financial management from an Islamic perspective, which emphasize that education funds must be managed with the principles of trustworthiness, transparency, and accountability to prevent misuse. Therefore, the use of Smart Cards can be understood as a form of implementing Sharia values in school financial management.

"Students used to often lose money at school, especially in the cafeteria or dormitory. Now, with this card, everything is recorded, and parents can see what their children are spending. This is very helpful in terms of security and transparency" (Amrullah, interview, November 6, 2025).

Islamic teachings have emphasized the importance of trust and transparency in managing wealth from the beginning. This is in accordance with the word of Allah SWT:

وَلَا تَأْكُلُوْٓا اَمْوَالَكُمْ بَيْنَكُمْ بِالْبَاطِلِ وَتُدْلُوْا بِهَآ اِلَى الْحُكَّامِ لِتَأْكُلُوْا فَرِيْقًا مِّنْ اَمْوَالِ النَّاسِ بِالْاِثْمِ وَاَنْتُمْ تَعْلَمُوْنَ ۟ ﴿١٨٨﴾

"And do not consume one another's property unjustly, nor bring the matter before the judge so that you may consume some of the property of others unlawfully, while you know.'' (QS. Al-Baqarah: 188).

This verse emphasizes the principles of prudence, trustworthiness, and transparency in

managing assets. Therefore, the implementation of a transparent digital financial system in Islamic schools can be understood as a concrete manifestation of the implementation of sharia teachings in modern transactions.

In addition to being a payment and monitoring tool, based on the image, this Smart Card application is also equipped with notification and information features regarding activities carried out at the Islamic boarding school and SMKS Darul Hikmah. Thus, the reason for implementing the Smart Card application at SMKS Darul Hikmah Pekanbaru is not only a technological innovation, but also a reflection of the commitment of Islamic educational institutions in combining modern technology with the principles of maqashid sharia, namely maintaining the welfare and preventing damage amidst changing times. The implementation of this Smart Card application creates transparency to prevent misunderstandings, negligence, or fraud in the future, and makes this Smart Card application a tool for monitoring student progress through digital attendance to monitor student attendance in real time. This application is one of the digital innovations in school education to improve the efficiency and quality of educational services.

Implementation of Smart Card Application in transparency as a Payment transaction tool

The Smart Card application plays a crucial role as a digital transaction system at SMKS Darul Hikmah Pekanbaru. Through this smart card, students can pay tuition fees, purchase food in the canteen, or other necessities at the cooperative without using cash. This system not only creates convenience but also provides a sense of security for students and parents.

The Smart Card application is designed to facilitate cashless payments at school, including for the canteen, cooperative, and tuition fees. Implementation data shows that the application has reduced the need to carry cash, thus reducing the risk of money loss, a common complaint among students. Parents can set spending limits for their children through the application, allowing for real-time spending control. However, some students still carry cash, likely due to limited access to technology or old habits, indicating that the application's effectiveness is not yet optimal.

Figure 2. Implementation of Smart Card Application

Payment transparency is achieved through automatic reporting features accessible to parents, such as transaction history and card balances. This increases accountability, as parents can monitor their children's spending without relying on manual reports from the school.

An interview with the principal (Amrullah, interviewed on November 6, 2025) revealed that the application is recognized as a tool for monitoring all aspects of the school, including student finances, allowing parents to directly view their children's spending progress. Ustad Amrullah stated, "Parents are aware of their children's progress, both in terms of spending and attendance. They are directly monitored by their parents." This demonstrates that the application provides high transparency, reduces the need for manual communication, and helps parents manage their children's spending.

An interview with Ustad ZulFahmi, an administrative staff member at Darul Hikmah Vocational School, explained that this system serves a dual purpose: facilitating school administration and improving student financial management.

"This app is really helpful for us in the administration department. All transactions are recorded automatically, eliminating the need for manual typing. With the app, parents can pay tuition fees, and notifications are provided so they can pay on time and avoid queuing. Money coming in and going out is clear, and parents can see it directly through the app. The children are also safer, no need to carry cash to school because they buy snacks in the canteen using a Smart Card." (ZulFahmi, interview, October 23, 2025).

Thus, the use of digital systems such as Smart Cards is a strategic step to improve the efficiency and accuracy of school financial administration. Another study on the cashless payment system at the Igasar Foundation school cooperative also confirmed that cashless payment methods "can reduce the circulation of cash within the school environment and make it easier for parents to control their children's pocket money." (Gusrion, 2018). Temuan ini memperkuat bahwa digitalisasi transaksi memberikan nilai tambah dalam Monitoring and managing student finances aligns with desired goals and creates a sense of security and comfort for parents, as all transactions can be monitored transparently and in real time.

Furthermore, this system allows parents to set daily spending limits for their children. Through a feature integrated with the app, parents can set a maximum daily card usage limit to prevent students from overspending. Ustazah Fitriani, a teacher and homeroom teacher, revealed that this system has also impacted student behavior. She said, "Students have become more organized. Usually, children spend their money quickly, but now they learn to manage it because their parents monitor them. And they feel safer because they no longer lose money." (Fitriani, interview, November 6, 2025).

The benefits of this system are immediately felt. Karimah, a 10th-grade Visual Communication Design student, said, "It's much easier to use this card. Payment is quicker, I don't have to carry cash, and my mom can see what I'm buying. So I can't be careless." (Karimah Maharani, interview, November 6, 2025).

Naila Ramadhani Nasution, an 11th-grade AKP student, also felt this directly, adding: "I used to often lose money or forget to pay, but now everything is automatically recorded. It feels more organized." (Naila Ramadhani Nasution, interview, November 6, 2025).

Based on the student spending history, the implementation of the Smart Card application at SMKS Darul Hikmah Pekanbaru has demonstrated significant effectiveness in managing students' daily transactions in a transparent and structured manner. This is evident in the student's transaction, which recorded an expenditure of Rp 6,000 for shopping at the canteen on September 9, 2025, which was directly monitored through the application. The digital

transaction data displays specific details of the date, time, transaction name, and nominal amount, and demonstrates that every student's expenditure is monitored in real time and can be accessed by parents. This not only reduces the risk of losing cash, as expressed in an interview with Karimah, a student who felt more secure and organized, but also proves that this digital system encourages financial discipline, reduces the circulation of physical money, and provides real-time data that creates transparency for parents, thus supporting the goal of Islamic education in developing a responsible and efficient generation.
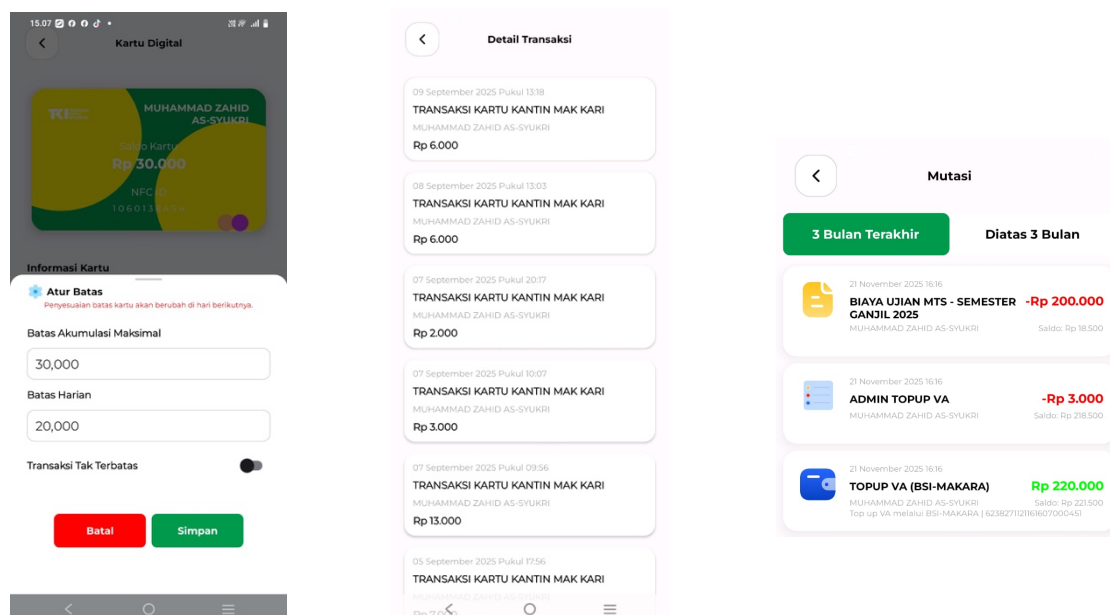

Figure 3. Implementation of Smart Card Application student's transaction

This digital system not only improves administrative efficiency but also instills the values of responsibility and financial discipline in students, creating a sense of security and comfort in using the Smart Card. Meanwhile, one parent considered this system a sign of progress in Islamic boarding school management. Mr. Jablawi said, "As parents, we feel more at ease because all our children's activities at school can be monitored. However, we hope the administrative costs can be reduced" (Jablawi, interview, October 28, 2025).

Interviews with parents, such as Mr. Jablawi, show that the app is very transparent and helps monitor children's financial transactions. Mr. Jablawi said: "The use of this Smart ID card is very helpful for parents because in addition to controlling student finances, paying tuition fees, paying activity fees, it also functions to see our child's attendance, absences, whether he goes to school, what time he comes in, what time he goes home." He also mentioned that this app can set a daily spending limit, for example Rp. 25,000 per day, which makes spending controlled, although there is an administration fee that is considered high at Rp. 3,000 per transaction.

The daily spending limit setting feature in the Smart Card application is proof of the implementation of the Smart Card application at SMKS Darul Hikmah in forming financial discipline and real-time parental supervision, in line with the principles of trust and transparency, this feature provides structured financial control that directly supports the maqashid sharia in the dimension of Hifz al-Mal (protection of property), not only from the risk of physical loss, but also from the risk of israf (waste) or uncontrolled spending. With the

existence of a daily spending limit (for example, IDR 20,000) set by parents as shown in this image. This system functions as an educational instrument that forces students to allocate funds wisely, teaches them financial management and optimizes the application's function as a tool to prevent excessive consumer behavior.

Another parent, like Ms. Isna Astuty, acknowledged the app's transparency of financial data but complained about the significant administrative fees for frequent top-ups. She said, "This app makes things easier, but the administrative fees are double the amount and are very high." (Isna Astuty, interview, November 6, 2025). Several parents, like Mr. Marifin and Ms. Isna, suggested that the school reduce the administrative fees to better align with Sharia principles. This can happen if parents send money to their children too frequently, resulting in high top-up fees. However, if parents or guardians only top up their children's balances once a month, the top-up fee is negligible compared to the convenience and transparency experienced by both parents and students.

In addition, there are several obstacles felt by students in using Smart Card cards to make payments. As expressed by Liora, she said "this application is indeed more practical but it is a bit difficult to pay cash or fees and also the queue is very long and also she said this application is less effective and efficient because it has to wait a long time in the canteen and she also said that she felt stressed because there is a limit in payments at school with this card And she also said that her parents do not really understand how to use this application so they rarely control their children's attendance at school. The drawback of this application according to Pertiwi is that because you have to enter a password or code it makes the queue in the canteen very long so the suggestion from Liora Pertiwi is to remove the password so you don't have to queue" (Liora Pratiwi, interview 06 November 2025).

This was also felt by one of the 10th grade students who said, "Sometimes the queue is long because there is only one payment machine while there are many buyers" (Yudistira Naufal Akbar, interview November 6, 2025). The results of the interview with Fadil said, "The drawback of this application is that it can only be used in the school area and sometimes there are network problems and long queues in the canteen to pay" (Fadil Nofrialdy, interview November 6, 2025). The limitations of using this application are because this Smart Card can only be used in the school environment, while when the students have activities outside of school, they have difficulties because they cannot use this Smart Card as a means of payment for their purchases.

The principal of SMKS Darul Hikmah also confirmed this, "The shortcomings felt by the school regarding this application may be in terms of the network or perhaps in terms of tools, then the network that may need to be strengthened by the school and BSI because the duplication of this tool is the BSI bank, not the school, and the number of children is now more than 1500 children because in this boarding school there are MTs and MA. With only one tool in one place, it makes the payment process a bit slow. I want there to be additional payment tools from BSI bank. If we also see these children often go out to participate in competitions outside the boarding school, while students are no longer allowed to use cash in the school environment, so we and BSI bank have prepared ATMs so these children are also equipped by their parents if they want to go out of school such as competitions, study tours and others. "Parents of students do not need to come to school, they just need to transfer. So there is a solution provided by the school and BSI bank by withdrawing cash at the school BMT or through the BSI bank ATM available at our school" (Amrullah, interview 06 November 2025).

The interview results indicate that the implementation of the Smart Card application has encountered several obstacles, such as long queues due to the lack of payment machines in the

canteen and the limited use of this Smart Card, which can only be used within the school environment. The implementation of the Smart Card application can be said to be transparent, especially through the real-time monitoring feature by parents which reduces the risk of losing cash and allows for control of spending limits, as confirmed by the Principal, Ustad Amrullah, and parents such as Mr. Jablawi who feel helped in managing student finances. Although there are shortcomings such as high administration fees, long queues in the canteen, and limited use only within the school environment, which were complained about by students such as Liora Pertiwi and Fadil Novriyadi. However, the school has provided a solution for students who want to shop outside the school can use the BSI ATM and BMT school to make cash withdrawals. Complaints about network problems are expected to be the focus of the school to improve and enhance the performance of this Smart Card application by adding a student shopping payment machine to provide a sense of comfort to students in using this application. With the student shopping transaction history feature, this Smart Card application is declared transparent and accountable and supports the maqashid sharia of Ibn Asyur, especially hifdz al-mal (protection of property) and hajiyat (ease of life), so that the implementation of this application as a whole is effective and transparent in the context of sharia education, provided that technical and operational obstacles are overcome to achieve full optimization.

Using the Smart Card Application as a Student Development Monitoring Tool

The Smart Card application not only functions as a digital payment transaction tool but also plays a crucial role in monitoring student progress, including discipline, attendance, and consumer behavior patterns while at school. This system is designed to provide accurate, real-time, and easily accessible information to parents, enabling more effective supervision.

In the context of Islamic education, monitoring student development is the responsibility of both parents and educational institutions. Islam emphasizes the importance of syurā (cooperation) between families and schools in educating a generation of moral and responsible individuals. Digital monitoring systems like the Smart Card strengthen this relationship by providing clear and transparent data.

Monitoring and evaluation are fundamental elements for improving the quality of education, as through systematic oversight mechanisms, institutions can ensure the achievement of learning objectives and student behavior. This demonstrates that the Smart Card's monitoring function is not merely a technical feature, but part of a professional education management system that aligns with Islamic principles.
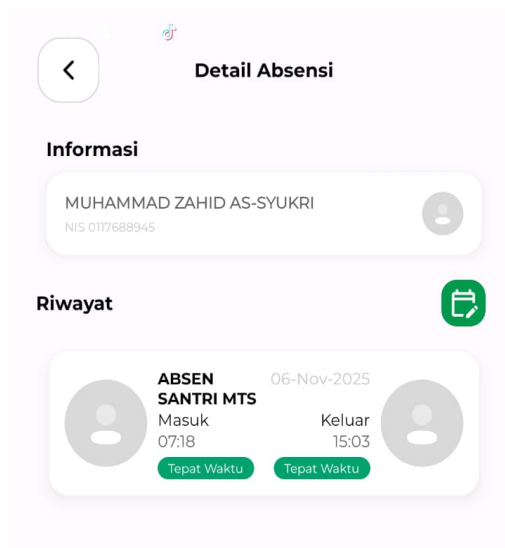
Figure 4. Implementation of Smart Cards as a discipline monitoring tool

Through the attendance feature in the image, the student's digital attendance history data, which displays a clock-in time of 7:18 AM and clock-out time of 3:03 PM marked as "On Time," serves as evidence demonstrating the implementation of Smart Cards as a discipline monitoring tool. Conceptually, this feature realizes the principle of systematic, data-driven educational supervision. This allows parents and schools to monitor student compliance with the learning schedule in real time. Based on the results of the interview, this application allows for real-time monitoring of student attendance, which contributes to increased discipline and learning motivation. Parents can view their child's clock-in and clock-out times, as well as activities at school, which helps early detection of problems such as absenteeism or inappropriate behavior.

Ustadzul Fahmi, the administrative director, emphasized the attendance feature, which allows parents to monitor their children's daily attendance. He said: "Another feature is class attendance. Class attendance also uses the app. So, yes, that's it. Parents can easily monitor their children's attendance daily. However, monitoring children's academic grades is still done manually, by looking at report cards at the end of the semester. Perhaps later we will add a feature to this app to view students' academic results." (Zulfahmi, interview, October 23, 2025). This demonstrates that the app can be used as a monitoring tool, even though academic grades are not yet fully integrated.

Based on an interview with a teacher and homeroom teacher at Darul Hikmah Vocational School, Pekanbaru, "This smartcard is very helpful for us as teachers. Student attendance can be detected immediately. If a child is absent, parents are immediately notified through the app, improving communication between the school and parents" (Fitrianty, interview, November 6, 2025).

Meanwhile, Ustaz Darusman, a teacher and dormitory supervisor, stated, "We've seen positive changes. When students know their attendance is automatically monitored and their parents are involved, they become more disciplined. This also makes it easier for us to guide their discipline." (Darusman, interview, November 6, 2025).

These teachers' statements demonstrate that the Smart Card is not merely an administrative tool but also has a strong character education dimension. Through this system, values such as responsibility, honesty, and discipline are instilled in students through measurable habits that are directly monitored in real time by parents.

Eleventh-grade student Zahfiya Talitha Sari also experienced the use of this monitoring application: "Now we are more careful and disciplined, because if we miss a class, our parents know right away. I don't dare procrastinate or be negligent" (Zahfiya Talitha Sari, interview, November 6, 2025). Nabila Afiliani, a 10th-grade student, echoed this sentiment: "This application makes me enthusiastic about studying. My parents can see my grades and attendance, so I feel compelled to strive for better" (Nabila Afiliani, interview, November 6, 2025).

However, there are obstacles such as lost cards that affect monitoring, and some students' lack of discipline in using the app for attendance. Ustadzah Fitriani mentioned that the app impacts student discipline because parents can view attendance directly. She said: "For example, if we look at the current application, it's very effective. But sometimes there are obstacles. For example, a child is less disciplined in tapping their card, even though they haven't. But if it's done properly, it's even more helpful. Parents can monitor their children even though they're at home, but they know, 'My child didn't go to school today.' So, parents can ask the homeroom teacher or the dormitory guardian." (Fitriani, interview, November 6, 2025).

From these interviews, it can be concluded that the Smart Card has played a significant role in improving academic control and student discipline, while strengthening the relationship between schools, teachers, and parents. This system embodies the principle of educational supervision, which is not only administrative but also moral and spiritual.

This kind of digital monitoring aligns with the principles of Hifdz al-Nafs and Hifdz al-'Aql in the maqasid sharia, which is to safeguard oneself and reason through discipline and constructive behavioral supervision. Ibn Asyur emphasized that the goal of sharia in education is to shape morals and social order through instruments that support the monitoring process. (Moh. Toriquddin, 2013). Therefore, a digital system capable of improving student discipline and supervision can be categorized as an implementation of the maqasid sharia.

With the Smart Card, student monitoring becomes more systematic, measurable, and objective. This system helps realize the principles of transparency and openness in student supervision, both by schools and parents. The Smart Card application is considered an important instrument for monitoring student development and behavior, in line with Islamic educational values that emphasize discipline, responsibility, and order.

Analysis of Smart Card Applications as a Payment Transaction Tool and Monitoring Student Progress According to Maqasid al-syari'ah (Ibn 'Ashur) from Ibn Asyur's Perspective

The theory of Maqasid Sharia, developed by Ibn Asyur, provides a philosophical foundation for understanding the objectives behind every policy, including the application of technology in education. According to Ibn Asyur, maqasid sharia is divided into two: maqasid al-'ammah (general objectives of sharia) and maqasid al-khasah (specific objectives of sharia).

In his maqasid literature, Ibn Asyur emphasized that the objectives of sharia must be understood within a social context and changing times, as law aims to safeguard the interests of the people, which continually evolve with the needs of society. (Moh. Toriquddin, 2013). This explanation strengthens the Smart Card's position as an instrument that aligns with modern developments without abandoning Sharia principles.

The implementation of Smart Cards can be seen as part of a systematic effort to achieve the public interest through transparent school financial management, increased student discipline, and strengthened relationships between schools and parents. In the context of Islamic education, technological modernization is a means (wasā'il) that can be used to achieve Sharia goals

(maqāṣid), as long as it does not conflict with the core values of Sharia.

Research on cashless payments in Islamic educational institutions shows that modernizing financial administration systems can increase transparency, reduce the risk of misuse of funds, and strengthen parental trust. It states that: "The implementation of digital payment systems in Islamic boarding schools helps create more orderly, secure financial governance that aligns with the principles of trustworthiness from an Islamic perspective." This is relevant to the goals of Sharia, which emphasize justice and trustworthiness in asset management.

1. Maqasid al-'Ammah: Maintaining Public Benefit

The general objective of sharia, according to Ibn Asyur, is to create social order, uphold justice, and safeguard the collective well-being of humanity. In the context of SMKS Darul Hikmah Pekanbaru, the implementation of Smart Cards serves to maintain order in the educational system and managerial transparency, a concrete manifestation of maqasid al-'ammah.

Based on an interview with Ustadz Amrullah, the principal, he emphasized, "We want this school to be orderly and transparent, both in terms of finances and student attendance. Everything is made transparent so that parents have confidence in the school system" (Amrullah, interview, November 6, 2025).

This demonstrates that digital implementation is not merely about efficiency, but also an effort to realize justice and trustworthiness in the management of educational institutions. These values of justice are in accordance with the word of Allah SWT:

اِنَّ اللّٰهَ يَأْمُرُكُمْ اَنْ تُؤَدُّوا الْاَمٰنٰتِ اِلٰٓى اَهْلِهَاۙ وَاِذَا حَكَمْتُمْ بَيْنَ النَّاسِ اَنْ تَحْكُمُوْا بِالْعَدْلِۗ اِنَّ اللّٰهَ نِعِمَّا يَعِظُكُمْ بِهٖۗ اِنَّ اللّٰهَ كَانَ سَمِيْعًاۢ بَصِيْرًا ۝

"Indeed, Allah commands you to convey the message to those who are entitled to receive it, and when you establish a law between people, you must determine it fairly" (QS. An-Nisa: 58).

The Smart Card system implements the values of trust and 'adl in digital form. Financial transparency, regular attendance and parental supervision are real manifestations of maqasid al-'ammah, namely maintaining social order with the principle of justice.

2. Maslahah in Three Levels: Daruriyyat, Hajiyyat, and Tahsiniyyat

In Ibn Asyur's view, every sharia law aims to create maslahah (benefit) which can be divided into three levels:

a. Maslahah Daruriyyah (Primary)

The essential needs of the community relate to the protection of the essentials of religion, life, intellect, property, and descendants. The implementation of Smart Cards safeguards property (Hifz al-Mal) by preventing students from losing money and protecting school financial transactions from misuse. This digital system ensures that every transaction is recorded securely and transparently.

In the theory of Maqasid, the protection of property is a priority because it is an instrument supporting education, community development, and the sustainability of social life. l (Moh. Toriquddin, 2013). This explanation confirms that the Smart Card fulfills the daruriyyah aspect.

b. Maslahah Hajiyyah (Secondary)

This maslahah provides convenience and reduces the burden. Parents no longer need to come to school to monitor their children, just through an application connected to the school system. This facilitates interaction between the school and the parents, strengthening the principle of taysir (convenience) in Islam.

c. Maslahah Tahsiniyyah (Complementary)

This maslahah relates to the formation of ethics and morals. Through the Smart Card, students learn to be disciplined, honest, and responsible in the use of money and time. Ustazah

Giantika stated:

"*Children learn that their every action is recorded. This way, they learn to be honest and responsible.*" (Fitrianty, interview 06 November 2025).

Tahsiniyyat in maqashid includes efforts to form praiseworthy morals and prevent bad behavior, so the use of technology that educates discipline is very relevant to the goals of maqashid. (Moh. Toriquddin, 2013).

These three levels of benefits make this system in line with maqasid sharia, comprehensively protecting basic interests, providing convenience, and forming good character.

3. Operationalization of Maqasid: al-Maqam, Istiqra', and Wasail-Maqasid

Ibn Asyur explained that maqasid can be operationalized through three approaches: al-maqam (social context), istiqra' (induction), and the distinction between wasail (means) and maqasid (goals).

In this context, the Smart Card is a wasilah (means) to achieve the goals of sharia, namely security, efficiency, and moral responsibility. The use of technology is not an end in itself, but rather an instrument that supports the achievement of maslahah. In Ibn Asyur's theory of al-wasail, means that lead humanity to modern welfare can be categorized as wasilah maqasid as long as they do not conflict with sharia principles. (Moh. Toriquddin, 2013). Thus, the implementation of a digital system like this is highly suited to the changing needs of the times.

Through the al-maqam approach, this system is presented as a response to the contextual needs of Islamic education in the digital era. Furthermore, its empirical benefits are proven through accurate transaction data and improved student discipline.

The Prophet Muhammad (peace be upon him) said:

إِنَّ اللهَ يُحِبُّ إِذَا عَمِلَ أَحَدُكُمْ عَمَلًا أَنْ يُتْقِنَهُ

"*Indeed, Allah loves that if someone among you does something, then he does it to the best of his ability*" (HR. Al-Bayhaqi).

This hadith illustrates that every form of professionalism and sincerity in work, including managing digital systems in schools, is part of a righteous deed beloved by Allah. Therefore, effective Smart Card management is a manifestation of the value of itqan (perfection of work) within the maqasid sharia.

4. Maqasid al-Khasah: Specific Objectives of Sharia in Muamalah Education

At the level of maqasid al-khasah, Ibn Asyur emphasized that the goal of sharia in transactions is to maintain justice, prevent injustice, and protect individual rights. The implementation of Smart Cards in the Islamic education system can be understood as an implementation of a specific maqasid in the field of educational transactions, as it guarantees the rights of students, teachers, and parents to fair and transparent information.

The hadith of the Prophet ﷺ states:

كُلُّكُمْ رَاعٍ وَكُلُّكُمْ مَسْئُولٌ عَنْ رَعِيَّتِهِ

"*Each of you is a leader, and every leader will be asked about those he leads.*" (HR. Bukhari dan Muslim).

In Islamic educational administration studies, the implementation of shared responsibility (mas'uliyyah musytarakah) is considered part of the maqasid of education, which demands transparency and the involvement of all parties. Therefore, the Smart Card system can be understood as an instrument that instills moral and social accountability.

Thus, the Smart Card system makes every stakeholder teachers, parents, and students—

aware of their roles as trustees. Teachers and schools are responsible for data accuracy and system security, while parents are responsible for supervising their children. This system is not simply a technology, but a maqasid educational tool, a means of instilling moral awareness and social responsibility in accordance with the goals of Islamic sharia.

CONCLUSIONS

Based on research and discussion, the implementation of the Smart Card application at the Darul Hikmah Islamic Boarding School in Pekanbaru has been proven to increase the transparency and efficiency of the payment system and monitor student progress. This application successfully reduces the risk of cash loss, allows parents to monitor children's expenses in real time, and facilitates digital attendance, which improves student discipline. However, its implementation has not been fully optimized due to obstacles such as long queues in the cafeteria, limited use only within the school premises, as well as network issues and lost cards.

From the perspective of Ibn Asyur's maqasid sharia, this application aligns with maqasid al-'ammah through upholding justice, trustworthiness, and social order; maslahah daruriyyah by protecting wealth (hifdz al-mal), maslahah hajiyyah by providing easy access to information; and maslahah tahsiniyyah by shaping morals such as responsibility and discipline. At the level of maqasid al-khasah, this application supports transparent and accountable educational transactions. Overall, Smart Card is an innovation that supports the benefit of Islamic education, although it needs technical and operational improvements to overcome obstacles to comply with the principles of taysir (ease) and itqan (perfection of work) in sharia. Recommendations for development include the addition of payment machines, reducing admin fees, and expanding the academic grade monitoring feature.

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