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FROM PAYMENT TRACEABILITY TO STAKEHOLDER TRANSPARENCY: A DOCUMENTARY CASE STUDY OF THE CASHLESS SYSTEM AT PONDOK PESANTREN DARUNNAJAH JAKARTA

Rine Ratna Rahmania[1], Agussalim[2]

[1]Program Studi Pendidikan Ekonomi, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Terbuka. [2]Program Studi Pendidikan Ekonomi, Fakultas Ekonomi dan Bisnis, Universitas Negeri Makassar.

Email: 052699902@ecampmus.ut.ac.id

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Abstract

Cashless payment in residential Islamic boarding schools (pesantren) changes not only how students (santri) pay but also how school business units account for sales and how guardians follow their children's spending. This study examines the cashless system at Pondok Pesantren Darunnajah Jakarta to establish what it changed, what can be shown to have changed, and under which conditions it can deliver financial transparency. A qualitative documentary case study was conducted, using the school's official implementation notice of 9 November 2021 as the primary source and a structured synthesis of 25 DOI-registered studies published between 2017 and 2026 as the interpretive corpus. The record confirms that the system began on 2 November 2021, links a tap card to the Tabungan Anak Santri (TAS) savings account, is accepted at several campus business units, and allows guardians to transfer funds directly to TAS. These facts establish a change in payment infrastructure and allowance delivery, but not in spending behaviour, budgeting discipline, or guardian access to itemised records. The study contributes a record, access, interpret, act (RAIA) framework that separates payment traceability from transparency for santri, business units, and guardians, and derives three propositions for empirical testing.

Keywords: *cashless payment; pesantren; student financial management; financial transparency; stakeholder accountability*

Dari Keterlacakan Pembayaran ke Transparansi Pemangku Kepentingan: Studi Kasus Dokumenter Sistem Nontunai di Pondok Pesantren Darunnajah Jakarta

Abstrak

Penerapan pembayaran nontunai di pondok pesantren tidak hanya mengubah cara santri membayar, tetapi juga cara unit usaha pesantren mencatat penjualan dan cara wali santri mengikuti pengeluaran anaknya. Penelitian ini mengkaji sistem nontunai di Pondok Pesantren Darunnajah Jakarta untuk mengetahui apa yang berubah, apa yang dapat dibuktikan berubah, dan dalam kondisi apa sistem tersebut menghasilkan transparansi keuangan. Penelitian menggunakan studi kasus dokumenter kualitatif dengan pengumuman resmi pesantren tertanggal 9 November 2021 sebagai sumber primer dan sintesis terstruktur atas 25 artikel ber-DOI terbitan 2017 hingga 2026 sebagai korpus interpretatif. Dokumen tersebut menegaskan bahwa sistem mulai berlaku pada 2 November 2021, menghubungkan kartu tap dengan Tabungan Anak Santri (TAS), diterima di sejumlah unit usaha pesantren, dan memungkinkan wali santri mentransfer dana langsung ke TAS. Fakta ini membuktikan perubahan infrastruktur pembayaran dan jalur pengiriman uang saku, tetapi belum membuktikan perubahan perilaku belanja, disiplin anggaran, atau akses wali terhadap rincian transaksi. Penelitian ini menawarkan kerangka record, access, interpret, act (RAIA) yang

membedakan keterlacakan pembayaran dari transparansi bagi santri, unit usaha, dan wali santri, serta merumuskan tiga proposisi untuk diuji secara empiris.

Kata Kunci: *pembayaran nontunai; pesantren; manajemen keuangan santri; transparansi keuangan; akuntabilitas pemangku kepentingan*

Introduction

Digital payment now mediates a growing share of everyday transactions, including those that take place inside educational institutions. In residential Islamic boarding schools (*pesantren*), however, replacing cash with a card is more than a change of payment instrument. It alters how students (*santri*) receive spending money, how school-owned business units collect and record revenue, and how parents or guardians stay involved in the financial lives of children who live away from home. The setting makes these shifts consequential because santri are at once consumers, learners of financial responsibility, and members of a community governed by explicit educational and disciplinary rules.

The literature offers two competing readings of cashless finance. Digitally recorded transactions can widen access to financial services, improve the continuity of payment, and make financial information more available[1], and in Indonesia the continued use of electronic money depends largely on trust, perceived security, and user satisfaction[2]. Ease of payment, however, is not the same as responsible spending. Mobile payment use has been associated with a higher risk of overspending, a risk that weakens as financial knowledge rises[3], and a recent meta-analysis reports a small but significant cashless spending effect whose size varies across contexts[4]. A technically efficient payment system may therefore strengthen or erode financial discipline depending on how it is designed and on the financial capability of its users.

Research on pesantren has begun to address this question. Sulfaningsih, Ratnasari, and Najimi link the digitalisation of the pesantren economy to santri financial behaviour while identifying gaps in institutional readiness and governance[5]. Two further strands are relevant. Meta-analytic evidence shows that financial education improves knowledge and downstream behaviour when it is deliberately delivered[6], and parental financial socialisation operates through modelling,

[1] Peterson K. Ozili, "Impact of Digital Finance on Financial Inclusion and Stability," *Borsa Istanbul Review* 18, no. 4 (2018): 329–40, https://doi.org/10.1016/j.bir.2017.12.003.

[2] Danarto Tri Sasongko, Putu Wuri Handayani, and Riri Satria, "Analysis of Factors Affecting Continuance Use Intention of the Electronic Money Application in Indonesia," *Procedia Computer Science* 197 (2022): 42–50, https://doi.org/10.1016/j.procs.2021.12.116.

[3] Sun Young Ahn and Youngwon Nam, "Does Mobile Payment Use Lead to Overspending? The Moderating Role of Financial Knowledge," *Computers in Human Behavior* 134 (2022): 107319, https://doi.org/10.1016/j.chb.2022.107319.

[4] Lachlan Schomburgk, Alex Belli, and Arvid O. I. Hoffmann, "Less Cash, More Splash? A Meta-Analysis on the Cashless Effect," *Journal of Retailing* 100, no. 3 (2024): 382–403, https://doi.org/10.1016/j.jretai.2024.05.003.

[5] Evi Sulfaningsih, Dwi Ratnasari, and Muhammad Nur Najimi, "Digitalizing Pesantren Economy: The Dynamics of Cashless Payment Systems and Santri Financial Behavior," *Al-Insyiroh: Jurnal Studi Keislaman* 12, no. 1 (2026): 85–101, https://doi.org/10.35309/alinsyiroh.v12i1.665.

[6] Tim Kaiser et al., "Financial Education Affects Financial Knowledge and Downstream Behaviors," *Journal of Financial Economics* 145, no. 2 (2022): 255–72, https://doi.org/10.1016/j.jfineco.2021.09.022.

discussion, and hands-on experience[7]. In a boarding school, the institution sits between parent and child, so the channel through which parents normally shape a child's money habits is mediated by school rules and school systems.

Pondok Pesantren Darunnajah Jakarta offers a well-documented site for examining these tensions. An official school announcement published on 9 November 2021 reports that a cashless system was inaugurated on 2 November 2021, that santri pay by tapping a card linked to the Tabungan Anak Santri (TAS) savings account, that the card is accepted at DN Store, the canteen, the telephone kiosk, the laundry, and other school business units, and that guardians can transfer funds directly to TAS[8]. These facts establish an institutional payment system and a new route for funding allowances. They do not, on their own, show whether santri began to budget better or whether guardians can see itemised purchases.

The gap this article addresses is therefore not whether a pesantren can adopt cashless payment but how such a managed, closed-loop system relates to three outcomes that are often merged in the literature: the implementation of payment in daily routines, the change in financial management before and after implementation, and the transparency of transactions for santri, business units, and guardians. Existing studies tend to examine technology acceptance, youth financial behaviour, or pesantren administration separately, and many treat the existence of an electronic record as evidence of transparency. This study separates *traceability*, meaning that a transaction is recorded somewhere in the system, from *transparency*, meaning that the right stakeholder can access, understand, and act on that record. It also treats the cashless system as an object of business management, involving internal control, revenue reconciliation, and the custody of pooled student funds, rather than solely as a question of technology adoption.

Three research questions guide the study. First, how was the cashless system formally implemented in the daily activities of santri at Darunnajah Jakarta? Second, which changes in allowance delivery, transaction practice, and financial management can be documented or cautiously inferred when the periods before and after implementation are compared? Third, under what verifiable conditions can the system provide financial transparency for santri, school business units, and guardians? The contribution is threefold: an evidence-bounded account of the implementation, a record, access, interpret, act (RAIA) framework for assessing stakeholder transparency, and a set of propositions with a verification protocol for subsequent field research.

Methods

The study used a qualitative documentary case study design with a single instrumental case. The case is Pondok Pesantren Darunnajah Jakarta in South Jakarta; other campuses in the Darunnajah network were excluded. The primary source is the school's official announcement of 9

[7] Ashley B. LeBaron-Black et al., "Parent Financial Socialization Scale: Development and Preliminary Validation," *Journal of Family Psychology* 36, no. 6 (2022): 943–53, https://doi.org/10.1037/fam0000927.

[8] Pondok Pesantren Darunnajah Jakarta, "Santri Menerapkan Sistem Cashless," Darunnajah.com, November 9, 2021, https://darunnajah.com/santri-menerapkan-sistem-cashless/.

November 2021 describing the introduction and basic operation of the cashless system[9]. The secondary corpus consists of 25 peer-reviewed journal articles published between 2017 and 2026, each with a registered DOI. Articles were selected purposively for relevance to six themes: digital payment adoption, the cashless spending effect, youth financial education and socialisation, noncash systems in pesantren, digital finance and inclusion, and rigour in qualitative analysis. The corpus was used to interpret mechanisms and to frame comparisons; it was not treated as direct evidence about Darunnajah.

The primary document was coded on six extraction fields: implementation date, payment instrument, linked account, merchant coverage, guardian funding mechanism, and stated institutional objectives. Each extracted statement was assigned one of three evidence statuses: directly documented, institutionally asserted but not independently evaluated, or not established in the available material. A deductive and interpretive thematic reading then mapped the coded statements onto the three research questions under the themes of implementation architecture, change in allowance management, and stakeholder transparency. Descriptive statements and analytic inferences were recorded separately, and the analytic decisions were logged to keep an audit trail, following the emphasis on reflexivity[10] and on trustworthiness criteria in thematic analysis[11]. Because no interviews, transaction ledgers, surveys, or field observations were available, the study does not claim saturation, member checking, or verification of behavioural outcomes. The study involved no human participants and no access to identifiable financial records.

Result and Discussion

Documented Implementation in Daily School Transactions

The announcement gives a precise implementation date: the cashless system for santri was inaugurated on 2 November 2021[12]. It describes a card that is tapped on a reader at participating points of sale, rather than a PIN-based debit workflow, and names DN Store, the canteen, the telephone kiosk, and the laundry as accepting locations, together with other school business units. The card draws on the santri's TAS balance. The announcement also states that santri may no longer use cash for any transaction within the pesantren and gives three objectives: reducing the use of cash as a possible medium of COVID-19 transmission, lowering the risk of lost money, and increasing the circulation of money. These items are documented as institutional statements. Compliance rates, reader reliability, transaction volumes, and the actual extent of merchant coverage have not been independently measured.

The card and TAS linkage creates a distinct transaction pathway. A guardian funds the student's account by transfer, and the student then uses the card for routine campus purchases. The

[9] Pondok Pesantren Darunnajah Jakarta, "Santri Menerapkan Sistem Cashless."

[10] Virginia Braun and Victoria Clarke, "Reflecting on Reflexive Thematic Analysis," *Qualitative Research in Sport, Exercise and Health* 11, no. 4 (2019): 589–97, https://doi.org/10.1080/2159676X.2019.1628806.

[11] Lorelli S. Nowell et al., "Thematic Analysis: Striving to Meet the Trustworthiness Criteria," *International Journal of Qualitative Methods* 16, no. 1 (2017): 1609406917733847, https://doi.org/10.1177/1609406917733847.

[12] Pondok Pesantren Darunnajah Jakarta, "Santri Menerapkan Sistem Cashless."

announcement supports this funding route but does not describe how balances are checked, how long transaction histories are retained, how lost cards are handled, or whether santri and guardians have the same viewing rights. The architecture is therefore documented, while its effect on financial judgement is not.

The timing and the first objective place the policy within the public-health response to the pandemic, which suggests that the system was introduced primarily as a hygiene and risk-control measure rather than as a financial education programme. The third objective, increasing money circulation, deserves attention from a business management perspective. Read in context, it implies circulation within the pesantren economy. When every school transaction must pass through a card that is accepted only at pesantren-owned outlets, student spending is retained within the institution's own enterprises. This can strengthen the economic self-reliance of the pesantren and give its business units a predictable revenue base. It also creates a captive market in which the same institution holds the students' funds, sets the prices, and receives the sales. Such a concentration of roles is not improper in itself, but it raises governance questions that the announcement does not address, including how prices at campus outlets are monitored, whether santri and guardians can compare them with outside prices, and who oversees the relationship between the custodian of TAS and the business units that draw on it.

The design resembles cashless arrangements reported in other pesantren. The Ngabar Smart Payment system at Pondok Pesantren Wali Songo Ngabar was reported to make transactions more orderly and administration more accessible[13], and student virtual accounts have been associated with easier remittance and better record keeping[14]. These cases are useful comparators, but they cannot confirm outcomes at Darunnajah.

A more important difference concerns the meaning of adoption. Studies of mobile wallets explain use through attitudes and acceptance conditions[15], perceived usefulness, perceived risk, and social influence[16], satisfaction with continued use[17], and initial trust and perceived consumption

[13] Heru Saiful Anwar, Raja Denata, and Andi Ikhwanul Islam Firdaus, "Digitalisasi Pendidikan Pesantren melalui Sistem Pembayaran Cashless Menggunakan Ngabar Smart Payment di Pondok Pesantren Wali Songo Ngabar," *MA'ALIM: Jurnal Pendidikan Islam* 4, no. 1 (2023): 43–53, https://doi.org/10.21154/maalim.v4i1.6678.

[14] Muhammad Nur Ahsan, Mohammad Habib Imroni, and Shinta Hayu Asyisa Kurnia, "Dampak Positif Implementasi Virtual Account Santri di Pesantren," *Management of Education: Jurnal Manajemen Pendidikan Islam* 10, no. 2 (2024): 108–15, https://doi.org/10.18592/moe.v10i2.12456.

[15] Deepak Chawla and Himanshu Joshi, "Consumer Attitude and Intention to Adopt Mobile Wallet in India: An Empirical Study," *International Journal of Bank Marketing* 37, no. 7 (2019): 1590–1618, https://doi.org/10.1108/IJBM-09-2018-0256.

[16] Nidhi Singh, Neena Sinha, and Francisco J. Liébana-Cabanillas, "Determining Factors in the Adoption and Recommendation of Mobile Wallet Services in India: Analysis of the Effect of Innovativeness, Stress to Use and Social Influence," *International Journal of Information Management* 50 (2020): 191–205, https://doi.org/10.1016/j.ijinfomgt.2019.05.022.

[17] Michael Humbani and Melanie Wiese, "An Integrated Framework for the Adoption and Continuance Intention to Use Mobile Payment Apps," *International Journal of Bank Marketing* 37, no. 2 (2019): 646–64, https://doi.org/10.1108/IJBM-03-2018-0072.

value[18]. In Indonesia, trust and intention shape the actual use of a sharia-based e-wallet[19], and financial literacy shapes the intention to use digital payment[20]. All of these models assume a voluntary choice. In a pesantren that prohibits cash for school transactions, card use reflects compliance with an institutional rule rather than acceptance in the usual sense. The constructs that matter therefore shift from intention to operational quality: whether readers work at peak shopping times, whether failed or disputed transactions are resolved fairly, and whether santri can understand their own balances.

Proposition 1. In a mandated, closed-loop pesantren payment system, user satisfaction and continued use are explained more by operational reliability and the fairness of dispute handling than by perceived usefulness or intention to adopt.

Before and After Implementation: Payment Channel Versus Financial Behaviour

The strongest documented change concerns the payment channel. The school's policy moves settlement at internal merchants from cash to card. The announcement contrasts transfer to TAS with an earlier practice of sending money through intermediaries or parcels, but it does not quantify how common that practice was[21]. The comparison must therefore be framed as a change in officially supported allowance delivery and payment mechanisms, not as a proven reduction in spending or an observed improvement in saving. Table 1 sets out what can and cannot be claimed for each dimension.

Table 1. Documentary Evidence on the Periods Before and After Cashless Implementation

Dimension	Before implementation	After 2 November 2021
Allowance delivery	Remittance through intermediaries or parcels is mentioned; its prevalence and timing are not documented.	Direct transfer by guardians to TAS is described as available.
Purchase settlement	Cash payment is implied by the stated transition; no individual records before 2021 are available.	Card tapping at named campus business units is explicitly described.
Purchase records	No purchase ledgers or student-level receipts were available.	The card and TAS linkage is documented; itemised histories, reconciliation, and retention are unverified.
Budgeting and saving	No baseline data on budgeting, saving, or pocket money were available.	No measured change in budget compliance, saving, or spending is available.
Guardian monitoring	No baseline monitoring rights or tools were described.	Top-up by transfer is documented; access to itemised transactions is not confirmed.

[18] Debarun Chakraborty et al., "Mobile Payment Apps Filling Value Gaps: Integrating Consumption Values with Initial Trust and Customer Involvement," *Journal of Retailing and Consumer Services* 66 (2022): 102946, https://doi.org/10.1016/j.jretconser.2022.102946.

[19] Muniaty Aisyah and Yunia Silvia Sesunan, "Decision Making on the Use of a Shariah-Based E-Wallet by Indonesian Consumers," *International Journal of Data and Network Science* 7, no. 4 (2023): 1739–52, https://doi.org/10.5267/j.ijdns.2023.7.017.

[20] Muchamad Khozin Chanafaro and Linda Purnama Sari, "Determinan Keputusan Penggunaan Pembayaran Digital: Peran Niat sebagai Mediasi Literasi Keuangan," *Journal of Business & Banking* 14, no. 1 (2024): 133–48, https://doi.org/10.14414/jbb.v14i1.4993.

[21] Pondok Pesantren Darunnajah Jakarta, "Santri Menerapkan Sistem Cashless."

Table 1 shows that the second research question can be answered only at the level of institutional payment arrangements. A claim that santri became more disciplined, less consumptive, or better at saving would require longitudinal account data, matched interviews, and controls for the school calendar and price changes. The opposite claim, that the card encouraged overspending, cannot be made from the Darunnajah record either.

What the record does show is a change in where the allowance is held and who bears its risks. Under cash, money sits in the student's possession, and loss or theft falls on the student and the family. Under the TAS arrangement, the balance sits in an institutional account, so the main risks shift to system errors, card loss, and unauthorised use, and responsibility for managing them shifts to the institution. The same shift changes the information available: a cash economy leaves almost no record of student purchases, whereas a card system can, in principle, produce a complete one. This asymmetry also complicates any before-and-after comparison, because the cash period offers no baseline against which recorded spending can be measured.

The behavioural literature explains why the question remains open. Electronic payment can feel less painful than handing over cash, which may raise spending[22]. The relationship is not deterministic, however: an Indonesian experiment found no significant overall difference in impulsive buying across pay later, e-wallet, and cash on delivery methods[23]. Indonesian studies of financial management among e-wallet users in Greater Jakarta[24], of the joint roles of literacy, lifestyle, electronic money, and self-control in student consumption[25], and of e-wallet use among Generation Z workers[26] point to the same conclusion: outcomes depend on users' knowledge and self-regulation. These populations differ from santri, so the studies should guide hypotheses and measurement rather than substitute for fieldwork.

A closed-loop pesantren system also has a feature that open e-wallets lack. Because the institution controls the merchant set, the funding channel, and potentially the card settings, it holds levers of choice architecture such as daily spending limits, category restrictions, and periodic balance statements. School-based financial education can improve young people's knowledge and

[22] Marie-Claire Broekhoff and Carin van der Cruijsen, "Paying in a Blink of an Eye: It Hurts Less, but You Spend More," *Journal of Economic Behavior & Organization* 221 (2024): 110–33, https://doi.org/10.1016/j.jebo.2024.03.017.

[23] Resekiani Mas Bakar, Nurul Fauziyah, and Abdul Rahmat, "Do Consumers Perceive Impulsive Buying and Pain of Payment? E-Commerce Transactions Using Pay Later, E-Wallet, and Cash-on-Delivery," *Gadjah Mada International Journal of Business* 27, no. 1 (2025): 31–59, https://doi.org/10.22146/gamaijb.81568.

[24] Febria Nalurita, Farah Margaretha Leon, and Muhammad Nisfiannoor, "Financial Management Behavior for E-Wallet Users in Jabodetabek," *Business and Entrepreneurial Review* 22, no. 2 (2022): 229–50, https://doi.org/10.25105/ber.v22i2.13951.

[25] Devi Kusmiati and Heny Kurnianingsih, "Perilaku Konsumtif Mahasiswa: Seberapa Besar Peran Financial Literacy, Life Style, E-Money, dan Self Control?," *Jurnal Ilmiah Edunomika* 6, no. 2 (2022): 626–36, https://doi.org/10.29040/jie.v6i2.4713.

[26] Farhan Ramadhan Putrantona and Rina Djunita Pasaribu, "Analysis of the Influence of Electronic Wallet Usage, Lifestyle, and Financial Literacy on the Consumptive Behaviour of Generation Z Workers in DKI Jakarta," *International Journal of Science, Technology & Management* 5, no. 3 (2024): 540–49, https://doi.org/10.46729/ijstm.v5i3.1098.

attitudes, although its effect on actual behaviour is less certain[27]. Linking the card to explicit budgeting routines, periodic reflection on spending categories, and age-appropriate feedback would turn a payment instrument into a learning instrument.

Proposition 2. The effect of a pesantren cashless card on santri spending depends less on the payment medium itself than on whether the institution pairs it with spending controls and structured financial learning.

From Traceability to Stakeholder Transparency

The third research question requires a stronger notion of transparency than the replacement of cash with an electronic balance. This study defines transparency through four conditions that must hold for each stakeholder: the transaction is *recorded* accurately, the stakeholder has authorised *access* to it, the stakeholder can *interpret* it because time, merchant, amount, and remaining balance are presented intelligibly, and the stakeholder can *act* on it by correcting an error, discussing a spending goal, or reconciling totals. Figure 1 presents this RAIA framework across the three stakeholder layers and marks where the Darunnajah record stops.

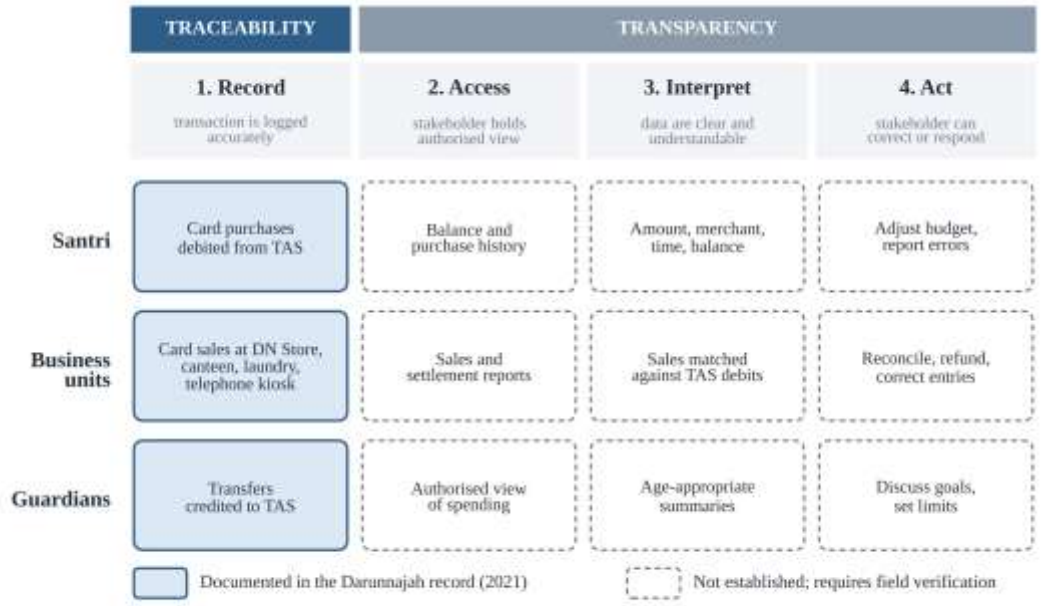


Figure 1. The Record, Access, Interpret, Act (RAIA) Framework for Stakeholder Transparency
Source: Developed by the authors from the Darunnajah announcement and the reviewed literature.

At the santri layer, a linked stored-value balance can support self-monitoring if students can see clear balances and purchase histories. At the business-unit layer, point-of-sale records can support cash reconciliation, stock management, and dispute resolution if transaction events are complete and regularly matched against TAS debits. From a management accounting standpoint, TAS balances are pooled funds held by the institution on behalf of santri; they are a liability of the

[27] Aisa Amagir et al., "A Review of Financial-Literacy Education Programs for Children and Adolescents," *Citizenship, Social and Economics Education* 17, no. 1 (2018): 56–80, https://doi.org/10.1177/2047173417719555.

custodian, not revenue of the business units. In Islamic finance terms, such balances resemble holder funds that Fatwa DSN-MUI No. 116/DSN-MUI/IX/2017 places under a *wadi'ah* or *qardh* contract, which carries obligations to safeguard the funds and keep them available to the holder[28]. Whether a closed-loop school card falls within the regulatory definition of electronic money is a matter for legal review, but the fatwa provides a useful governance benchmark: segregation of student funds from operating revenue, daily reconciliation between merchant sales and TAS debits, and clear rules on refunds and dormant balances. At the guardian layer, direct funding through TAS is documented, but a parent dashboard, automatic notification, itemised visibility, spending controls, and refund rights are not described in the record, so none of them is asserted here.

At the business-unit layer, traceability becomes accountability only when internal control separates the main duties. In a well-governed arrangement, the TAS administrator who credits guardian transfers, the cashier who records card sales, and the finance office that settles merchant accounts are different persons, and their records are compared periodically. If one unit can both post debits to student balances and settle its own sales, an electronic trail exists but cannot detect error or misuse. A complete audit trail for each balance, from guardian transfer to card purchase to merchant settlement, is the practical test of whether the system serves accountability or merely replaces cash.

The guardian layer is also where transparency can become counterproductive. School financial education and parental socialisation interact in shaping adolescents' financial behaviour[29], and school-based instruction can influence how parents teach saving[30]. Transaction visibility therefore has educational value only when it supports constructive conversation and a sensible degree of independence. Reporting every purchase without an age-appropriate purpose risks turning transparency into surveillance without improving budgeting competence. Transparent governance must also specify which user can see which fields, how long minors' data are retained, and how disputes and lost cards are handled.

Proposition 3. A pesantren cashless system improves stakeholder transparency only to the extent that each stakeholder passes all four RAIA conditions; traceability at the record stage alone does not produce transparency.

Implications for Field Verification

The fixed implementation date and the documented card and TAS arrangement are reliable anchors, but they are insufficient for causal claims about self-control or transparency. Table 2 translates the three research questions into a verification protocol for subsequent fieldwork. Because

[28] Dewan Syariah Nasional Majelis Ulama Indonesia, *Fatwa Nomor 116/DSN-MUI/IX/2017 tentang Uang Elektronik Syariah* (Jakarta: DSN-MUI, 2017).

[29] Alex Yue Feng Zhu, "School Financial Education and Parental Financial Socialization: Findings from a Sample of Hong Kong Adolescents," *Children and Youth Services Review* 107 (2019): 104532, https://doi.org/10.1016/j.childyouth.2019.104532.

[30] Alex Yue Feng Zhu, "Impact of School Financial Education on Parental Saving Socialization in Hong Kong Adolescents," *Journal of Behavioral and Experimental Economics* 87 (2020): 101557, https://doi.org/10.1016/j.socec.2020.101557.

the population consists largely of minors, any such study requires institutional ethical approval, guardian consent, student assent, and anonymisation of financial histories before primary records are collected.

Table 2. Field Verification Protocol by Research Focus

Research focus	Essential evidence	Minimum analytic check
RQ1: Daily implementation	Interviews with santri, staff, and merchants; observation of the purchase flow; user guide and exception procedures.	Compare the stated policy with actual merchant coverage, failed-payment handling, and the experience of different student groups.
RQ2: Financial management	Anonymised allowance and spending records from comparable periods; interviews reconstructing earlier routines.	Separate the change in payment route from any change in spending; report missing baseline data and calendar or price confounders.
RQ3: Santri	Student interviews; anonymised card statements; supervised demonstration of the interface.	Test balance visibility, readable purchase history, and dispute options against the four RAIA conditions.
RQ3: Business units	Merchant interviews; point-of-sale extracts; TAS ledger; reconciliation reports and operating procedures.	Test daily matching of sales against TAS debits, refund handling, exception logs, and segregation of student funds.
RQ3: Guardians	Guardian interviews; role-based access policy; screenshots of the actual interface.	Test authorised visibility, top-up confirmation, alert or limit settings, and privacy safeguards for minors.

The protocol calls for purposive variation across year levels, card-use intensity, guardians, merchant operators, and TAS administrators. Semi-structured interviews should cover allowance receipt, spending decisions, receipt checking, lost-card incidents, reconciliation, and disputes over charges. If archival data exist, comparable periods before and after November 2021 should be analysed, or the absence of a reliable cash-period baseline should be reported. Any claim of improvement should state whether it concerns convenience, spending restraint, record accuracy, or authorised transparency, because these are distinct outcomes.

Conclusion

This study shows that the cashless system at Pondok Pesantren Darunnajah Jakarta is best understood, on present evidence, as a transformation of payment infrastructure and allowance funding rather than as a proven change in how santri manage money. The documentary record establishes a dated implementation, a card linked to TAS savings, acceptance at named business units, and a direct transfer route for guardians. It does not establish that santri save more or spend less, that guardians can view itemised transactions, or that business units reconcile sales against student balances completely and accurately.

The broader lesson concerns the gap between what a system records and what its stakeholders can know and do. Electronic payment makes transactions traceable, but transparency emerges only when each stakeholder can access, interpret, and act on the record. The RAIA framework and the three propositions give pesantren managers and researchers a common yardstick for that gap. In practice, the priorities are an audit of card and account procedures, segregation and daily reconciliation of TAS funds in line with sharia custody principles, accessible transaction

summaries for santri, a documented dispute pathway, age-appropriate financial education, and explicit privacy rules for minors. Future research should test the propositions with interviews, anonymised transaction logs, and comparative cases across pesantren with different system designs.

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