



Digital Financial Management Systems in Public Elementary Schools: Enhancing Transparency and Stakeholder Trust

Laura Paramita ^{1*}, Zamroni ¹, Hasan Baharun ², Rizki Amelia ¹

¹ Universitas Islam Negeri Sultan Aji Muhammad Idris Samarinda, Indonesia

² Universitas Nurul Jadid, Probolinggo, Indonesia

Corresponding Author lauraparamita266@gmail.com *

ABSTRACT

This study aims to examine how digital financial management systems shape transparency, accountability, and stakeholder trust in public elementary schools. A qualitative single-case study design was employed. Data were collected through semi-structured in-depth interviews with six purposively selected informants (the principal, treasurer, system administrator, school committee chair, a parent representative, and the school supervisor) and through analysis of official documents generated by the school activity and budget plan application (ARKAS) and the school procurement information system (SIPLah). Data were analysed thematically and validated through source and technique triangulation. The results show that digitalisation operates through two complementary pathways. The process pathway reduces manual workload, prevents input errors and duplicate receipts through system validation, and supports data-based budget allocation. The disclosure pathway produces itemised reports, standardised budget codification, and procurement records with explicit tax components that committee members, parents, and supervisors can verify. Document analysis confirmed traceability between budget lines and purchase orders, as illustrated by a tarpaulin item recorded identically in ARKAS and SIPLah. Informants reported higher trust, stronger committee support, and simpler audits, while server downtime, power outages, and sudden application updates remained constraints. The study implies that digital systems strengthen trust when they are combined with active disclosure to stakeholders rather than treated as reporting tools for government alone; education offices should therefore invest in infrastructure resilience, operator capacity, and committee-facing reporting practices.

Keywords: *Digital Financial Management; School Accountability; Transparency; Stakeholder Trust; Arkas; Siplah*

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INTRODUCTION

Public trust has become a central currency of education governance. Schools that receive public funds are increasingly expected not only to spend those funds lawfully but also to show communities how and why money is spent. Research on trust in education shows that trust operates across levels, from generalised trust in public institutions to concrete relationships between schools, parents, and local communities, and that it conditions cooperation and the legitimacy of educational governance (Niedlich et al., 2021). At the same time, governments worldwide are digitalising public financial processes in the expectation that digital records will make public spending more visible and therefore more trustworthy (Matheus et al., 2021;

Agostino et al., 2022). Schools, as the most numerous and closest public service units to citizens, sit at the intersection of these two developments.

In practice, however, the management of school funds remains a recurring source of public concern. Studies in South Africa report that principals, although formally accountable for school finances, often rely on untrained administrative staff, lack effective financial policies, and receive limited support from education departments (Tsharane & Bussin, 2022). In Indonesia, where public schools are financed largely through the School Operational Assistance (BOS/BOSP) programme, empirical work has shown that internal control, accounting information systems, accountability, and transparency jointly determine the prevention of fraud in BOS fund management (Al Amin et al., 2023). A systematic review of anti-corruption policy in Indonesia further indicates that reforms succeed only when institutional change is combined with capacity building and community participation (Paranata, 2025). Suspicion that school funds are withheld or misused therefore remains a real social problem that undermines the relationship between schools and the families they serve.

The theoretical link between digital transparency and trust is less straightforward than policy discourse assumes. Experimental evidence shows that transparency can raise trust in government, but the effect depends on the content of the information and on prior perceptions of the institution (Alessandro et al., 2021). Decision transparency increases citizen trust in some regulatory domains but not in others (Grimmelikhuijsen et al., 2021), and government openness builds trust partly through democratic capacity rather than directly (Schmidhuber et al., 2021). Recent evidence from Indonesian local governments shows that digital budget transparency alone has only a weak direct effect on perceived budget credibility; its influence runs mainly through procedural fairness and the actual use of information in decision-making (Maisyarah, 2026). Transparency also improves public services mainly where street-level discretion is high, as in education (Bauhr & Carlitz, 2021). These findings reveal a theoretical gap: the mechanisms through which digital financial systems translate into stakeholder trust at the level of a single school remain under-theorised.

The problem is also practical. Digital transformation in schools is constrained by infrastructure, organisational culture, and the digital competence of staff (Timotheou et al., 2023; Pettersson, 2021). Reviews of digital transformation in education identify the lack of digital literacy, resistance to change, and inadequate infrastructure as the most frequent barriers (Gkrimpizi et al., 2023; Rodríguez-Abitia & Briebesca-Correa, 2021), while technology adoption depends on facilitating conditions, self-efficacy, and system accessibility (Granić, 2022). For communities, the consequence is that digital systems may produce reports that satisfy upward reporting obligations to government while parents and school committees still receive aggregated figures that they cannot interpret or verify. Without deliberate disclosure, digitalisation risks becoming an administrative exercise that leaves the trust deficit untouched.

Previous research has examined parts of this problem. Studies on digitalisation and accountability in public services show that digital tools can enable more dialogic and horizontal forms of accountability, but can also blur roles and create new accountability gaps (Agostino et al., 2022; Bracci, 2023). Reviews of technology and anti-corruption conclude that information and communication technologies support public scrutiny only when tools match local skills and context (Adam & Fazekas, 2021), and data-driven methods are increasingly used to detect fraud and collusion in procurement (Lyra et al., 2022). In Indonesia, e-purchasing has been found to reduce procurement fraud by widening market access (Zahra et al., 2022), and an integrated e-budgeting and e-reporting system for BOS funds improved report preparation efficiency by about 40% (Reknaningsih et al., 2026). Research on school leadership highlights the role of principals' digital leadership in technology use (Karakose et al., 2021; Hamzah et al., 2021; Karakose et al., 2022) and the importance of data use for school decisions (Mandinach & Schildkamp, 2021). However, these studies are mostly quantitative, focus on secondary schools, local governments, or system development, and rarely capture the perspectives of the full range of stakeholders affected by school financial information.

The novelty of this study lies in three aspects. First, it examines digital financial management in a public elementary school, whereas much of the literature on digital

transformation in education concentrates on higher education (Mohamed Hashim et al., 2022; Rodríguez-Abitia & Bribiesca-Correa, 2021). Second, it brings together the perspectives of internal actors (principal, treasurer, and system administrator) and external stakeholders (school committee, parents, and supervisor) within one case, allowing the trust-building process to be traced from data entry to stakeholder perception. Third, it triangulates interview accounts with the actual digital records produced by ARKAS and SIPLah, so that claims about transparency are examined against the traceability of concrete budget lines and purchase orders. Building on agency and stakeholder perspectives, the study proposes a process-and-disclosure model of how digital financial systems contribute to stakeholder trust.

Accordingly, this study aims to analyse how a digital financial management system is implemented in a public elementary school and how it contributes to transparency, accountability, and stakeholder trust. The study addresses three research questions: (1) how the school adopts and uses ARKAS and SIPLah in planning, spending, and reporting; (2) how the system affects the efficiency, accuracy, security, and auditability of financial management; and (3) how committee members, parents, and supervisors perceive transparency and trust in the school's financial governance after digitalisation.

METHOD

This study was guided by two theoretical propositions that served as working assumptions rather than hypotheses to be tested statistically. The first, derived from agency theory, assumes that the school acts as an agent managing public funds on behalf of the government and the community, and that digital records narrow the information asymmetry between them (Adam & Fazekas, 2021; Agostino et al., 2022). The second, derived from stakeholder theory, assumes that the school's legitimacy depends on how it creates value for and relates to multiple stakeholders, so that trust emerges when financial information becomes accessible and verifiable to them (Bridoux & Stoelhorst, 2022). To explore these propositions in depth, the study adopted a qualitative approach with a single-case study design. A qualitative case study was chosen because the research questions concern how and why a digital system shapes meanings, practices, and relationships within a bounded context, which cannot be captured adequately by measuring variables alone (Priya, 2021).

The research was conducted at SD Negeri 011 Sangatta Utara, a public elementary school in Sangatta Utara District, East Kutai Regency, East Kalimantan Province, Indonesia. The school was selected purposively for three reasons. First, it receives regular BOSP funding with an annual allocation of IDR 725,460,000 in the 2026 fiscal year, which makes the management of public funds a substantial responsibility. Second, the school has fully adopted ARKAS for budget planning and reporting and SIPLah for procurement, so the phenomenon under study is observable in daily practice. Third, the school involves its committee and parents in annual plenary meetings in which financial reports are presented, enabling the study to examine the stakeholder side of digital transparency. The school is located in a regency outside Java, a context in which infrastructure constraints on digital governance are relevant.

Data were collected through semi-structured in-depth interviews and documentation. Six informants were selected purposively according to their roles in, or relationships with, the school's financial management: the principal (Inf-1, Ar), the treasurer (Inf-2, Ns), the system administrator (Inf-3, Nds), the school committee chair (Inf-4, Iss), a parent representative (Inf-5, Nh), and the school supervisor (Inf-6, Dn). Interview guides were organised around indicators of adoption policy, efficiency, data accuracy, technical constraints, data security, system reliability, information openness, trust, and regulatory compliance. Informants are identified by initials to protect their identities, and quotations were translated from Indonesian into English by the authors. Documentation comprised the ARKAS monthly work-sheet details (*Rincian Kertas Kerja Perbulan*) for September 2026 and a SIPLah purchase order (*Surat Pesanan*) dated 22 September 2026, analysed following the procedures of qualitative document analysis (Morgan, 2022).

Data were analysed using thematic analysis that combined deductive codes derived from the theoretical propositions with inductive codes emerging from the data (Braun & Clarke,

2021; Naeem et al., 2023). The analysis proceeded through familiarisation with transcripts and documents, initial coding, grouping codes into themes, reviewing themes against the data set, defining themes, and developing a conceptual model of the relationships among themes. Document data were analysed by extracting budget codes, item descriptions, volumes, unit prices, and totals, recalculating arithmetic, and cross-checking items that appeared in both ARKAS and SIPLah. Trustworthiness was pursued through source triangulation across six informants with different positions and technique triangulation between interviews and documents, together with an audit trail of coding decisions (Ahmed, 2024).

RESULT AND DISCUSSION

Result

The findings are organised into five themes derived from the interviews, followed by the results of the document analysis of ARKAS and SIPLah. Table 1 summarises the informants and the indicators explored with each of them.

Table 1. Research informants and interview indicators

Code	Initials	Position	Main indicators
Inf-1	Ar	Principal	Adoption policy; trust building; budget decision-making
Inf-2	Ns	School treasurer	Efficiency and usability; data accuracy; technical constraints
Inf-3	Nds	System administrator / IT team	Data security; system reliability
Inf-4	Iss	School committee chair	Information openness; committee trust
Inf-5	Nh	Parent representative	Clarity of information; perception of governance
Inf-6	Dn	School supervisor	Regulatory compliance; ease of audit

Theme 1: Adoption as compliance and modernisation, and data-based budgeting

The principal described the adoption of the digital system as a response to government regulation as well as an effort to modernise school administration. Manual administration was considered complicated and prone to discrepancies, so the school made the system mandatory for the entire budget cycle:

"This step was really our response to follow government regulations while also modernising the school's system. Before, everything was manual, which was complicated and prone to discrepancies. So we decided to make this digital system mandatory so that all planning, spending, up to budget accountability reports can be monitored neatly in one centralised system." (Inf-1, Ar)

The same informant emphasised that the system changed the basis of budget decisions. Data on budget absorption allowed the principal to identify slow-moving and wasteful budget items and to use realised data as the reference for the next budget period:

"It's very easy. Through the data in the application, I can immediately check which budget items are being absorbed slowly or which are wasteful. So when I prepare the budget for the next period, I have a reference based on real data, not just guesswork. Allocation of funds for students' learning facilities becomes much more on target." (Inf-1, Ar)

Theme 2: Efficiency and accuracy, with infrastructure-related constraints

The treasurer reported the most tangible change in daily work. The shift from manual bookkeeping to single-entry digital recording reduced overtime, eliminated the search for small discrepancies, and simplified the preparation of expenditure accountability reports (SPJ):

"Oh, it's a world of difference! Back when it was manual, at the end of every month I would always work overtime piling up physical receipts and getting dizzy looking for discrepancies of one or two thousand rupiah. Now I input once, and the bookkeeping is automatically compiled. Preparing the SPJ is much easier and saves time; there's no need to make accountability reports in multiple bound volumes anymore." (Inf-2, Ns)

Accuracy was attributed to built-in validation that rejects inputs inconsistent with standards:

"The system already has a validation lock. So if, for example, there is a receipt whose value does not match the standard or a nominal input error, the system immediately rejects it and gives a warning. The risk of human error or duplicate receipts can really be minimised; the data that comes out is definitely precise." (Inf-2, Ns)

Nevertheless, the treasurer identified constraints that lie outside the school's control, namely central server downtime, power outages during working hours, and sudden application updates:

"The main obstacle is when the central server is down or when there is a power outage during working hours; the input process is automatically put on hold. Sometimes there are also sudden application updates from the centre, so we have to adapt again. But other than that, it runs smoothly because we're already used to it." (Inf-2, Ns)

Theme 3: Security through role separation and reliability through responsive support

The system administrator explained that data security is maintained mainly through access control that separates input, approval, and maintenance functions, complemented by routine backups:

"On security, we tighten access. Not everyone can open sensitive data; we apply a role-based access system. So the treasurer can only access input, the principal is for approval, and the admin is for maintenance. Data is also routinely backed up to an encrypted cloud every week so it is safe from viruses or hardware damage." (Inf-3, Nds)

"We try to keep the system on standby 24/7. If there's a bug or the treasurer complains the application is slow, the IT team steps in to fix it right away. The point is we make sure that the school's financial operations must not be hampered by technical application issues." (Inf-3, Nds)

Theme 4: Itemised disclosure and the growth of stakeholder trust

External stakeholders consistently linked digital reporting with greater openness. The principal stated that financial reports are now presented visually at the annual plenary meeting with parents and the committee:

"The effect on public trust is very strong. Now, in the annual plenary meeting with parents and the committee, we don't just hand over figures on paper. We can display the report dashboard visually and transparently. Parents come to understand where the BOS or SPP funds go, so there is no more suspicion that funds are being held back." (Inf-1, Ar)

The school does not collect tuition fees (SPP), in line with the free basic education policy for public schools, as confirmed during data collection. The principal's reference to SPP is reported verbatim and is read as a colloquial, generic expression for school funds rather than evidence of tuition collection. The committee chair highlighted the shift from lump-sum figures to itemised reporting and the school's readiness to open its data on request:

"Now we get very detailed periodic reports. Not just lump-sum figures like 'operational expenditure of so many million', but broken down into the details of purchases. If we need confirmation, the school is also immediately ready to open the data from its system." (Inf-4, Iss)

"It has clearly increased. The key is openness. When we see the school dare to be open using a digital system like this, we on the committee become confident that the budget is managed professionally and free from misappropriation. That's why when the school creates a new programme, the committee will give full support." (Inf-4, Iss)

The parent representative expressed similar confidence, grounding it both in the clarity of information and in visible improvements to school facilities:

"It's really convenient now; the breakdown of school costs or contributions is clear, and we get digital receipts or proof of payment directly. As parents we feel at ease because we know exactly that the money we pay is really used for children's activities or facilities at school." (Inf-5, Nh)

"Definitely trust, because everything is transparent. The school facilities also look increasingly better and well maintained, proof that the funds really are channelled properly. We no longer have any doubts about the school management." (Inf-5, Nh)

Theme 5: Compliance with codification and simplified supervision

From the supervisory perspective, digitalisation binds school budgeting to official codification and technical guidelines and enables verification without inspecting physical files:

"This school's level of compliance is very good. With the digital system, all budgeting is bound to the codification and official technical guidelines from the office. The risk of careless or fictitious budgeting is almost zero, because everything is monitored in real time from our system." (Inf-6, Dn)

"It greatly helps my supervisory work. Before, if I wanted to inspect, I had to dig through dozens of physical files and receipts in the room. Now I just ask for access to the digital report, check data consistency through the system, done. It's far more effective and accurate during verification." (Inf-6, Dn)

Document analysis: ARKAS and SIPLah records

The ARKAS monthly work-sheet for September 2026 records total BOSP Regular receipts of IDR 725,460,000 for the 2026 fiscal year (account code 4.3.1.01). The two pages analysed show that every expenditure line is structured by national standard (*Standar*), programme code, activity code, account code (*kode rekening*), volume, unit, and unit price, and that all subtotals are arithmetically consistent upon recalculation. Table 2 summarises the main budget components shown.

Table 2. Summary of ARKAS monthly work-sheet details, September 2026 (pages 1–2)

Programme code	Component (main items)	Amount (IDR)	% of annual receipt
03.	Process Standard (total)	31,363,648	4.32
03.03.06.	Scouting extracurricular: meal consumption 657 boxes × 35,000; scout sticks 30 × 28,000; two types of flags 5 × 16,000 each	23,995,000	3.31
03.03.17.	Participation in good-practice sharing: YAKITA co-curricular mangrove planting (1 activity)	5,748,648	0.79
03.03.21.	Religious, national and regional holidays: GML A4 tarpaulin 120 m × 12,000	1,440,000	0.20
03.05.02.	School health unit (UKS): height measuring instrument 1 pcs × 180,000	180,000	0.02
05.	Facilities and Infrastructure Standard (total)	169,031,000	23.30
05.02.03.	Main/supplementary textbooks: 6 titles × 40 copies (unit prices 111,000–149,000)	29,320,000	4.04
05.02.05.	Enrichment and reference books (multiple titles, 4–12 copies each)	40,576,000	5.59

Source: ARKAS Rincian Kertas Kerja Perbulan, September 2026, pages 1–2 of 9 (processed by the authors). Percentages are calculated against the annual BOSP receipt of IDR 725,460,000.

The work-sheet also carries the treasurer's handwritten annotations, such as "Oktober", "SIPLah", and the names of providers next to the textbook, enrichment book, flag, UKS instrument, and tarpaulin lines, with check marks on completed items. The authors read these annotations as a working record that links each budget line to its planned month of realisation and to the procurement channel, indicating that the digital plan is actively used as a control instrument rather than filed as a formality.

The SIPLah purchase order (No. PO6AB23CA5006AF, 22 September 2026, funding source BOS Regular) was issued through a SIPLah marketplace partner to a local registered provider, with a work time and delivery time of one day each. The order states the rights and obligations of both parties, including that the provider may invoice only after delivery is evidenced by a

handover report and that the school may reject goods that do not conform to the order. Table 3 presents the items listed on the order's itemisation page.

Table 3. Items listed in the SIPLah purchase order of 22 September 2026

No	Item	Qty	Unit price incl. tax (IDR)	Total (IDR)
1	Gravel, half cubic metre (0.5 m ³)	1	500,000	500,000
2	GML Grade A4 tarpaulin, per metre	120	12,000	1,440,000
3	Acetic silicone sealant, black	2	50,000	100,000
4	Pipe reducer socket 3/4 × 1 inch	3	8,000	24,000
5	PVC elbow 1/2 inch	10	9,000	90,000
6	Pipe reducer socket 1.5 × 1 inch	13	14,000	182,000
7	PVC elbow 1.5 inch	6	13,000	78,000
8	AW pipe 1.5 inch	2	95,000	190,000
9	Female threaded socket 1/2 inch	6	17,000	102,000
10	PVC pipe glue (can)	1	85,000	85,000
11	Combination pliers 7 inch	1	150,000	150,000
12	Hacksaw blade 12 inch	1	17,000	17,000
13	Pipe end cap 1/2 inch	5	8,000	40,000
Total of listed items				2,998,000

Source: SIPLah Surat Pesanan No. PO6AB23CA5006AF, itemisation page (processed by the authors). Each line also states the other-value tax base (DPP nilai lain), 12% VAT, and income-tax base; for item 2, DPP nilai lain IDR 9,909, VAT IDR 1,190, and income-tax base IDR 10,810 per metre.

Cross-checking the two documents shows direct traceability for the tarpaulin item. Table 4 shows that the description, volume, unit price, and total recorded in ARKAS under programme code 03.03.21 are identical to item 2 of the SIPLah order, and that the order date falls within the budget month. The remaining SIPLah items (gravel, pipes, and plumbing tools) do not appear on the two ARKAS pages analysed and are presumably budgeted on other pages of the work-sheet, which were outside the documents available to this study.

Table 4. Cross-check between ARKAS and SIPLah records

Attribute	ARKAS (Sept. 2026, row 11)	SIPLah order (item 2)	Match
Item description	Terpal GML A4 per metre (10 × 12)	Terpal GML Grade A4 per metre	Yes
Account / programme	5.1.02.01.02.0003 / 03.03.21.	Funding source: BOS Regular	Consistent
Volume	120 metres	120 pcs (per metre)	Yes
Unit price	IDR 12,000	IDR 12,000 (incl. tax)	Yes
Total	IDR 1,440,000	IDR 1,440,000	Yes
Timing	Budget month: September 2026	Order date: 22 September 2026	Yes

Source: ARKAS and SIPLah documents (processed by the authors).

Integrating the interview and document findings, Figure 1 presents the process-and-disclosure model developed in this study. Digital infrastructure produces process effects (single entry, automated reporting, error prevention) and disclosure effects (itemised reports, dashboards, and on-request access). These effects operate through an agency pathway, by reducing information asymmetry, and a stakeholder pathway, by making information verifiable to committee members, parents, and supervisors. Both pathways lead to accountability, compliance, and trust, while infrastructure and competence conditions moderate the whole process.

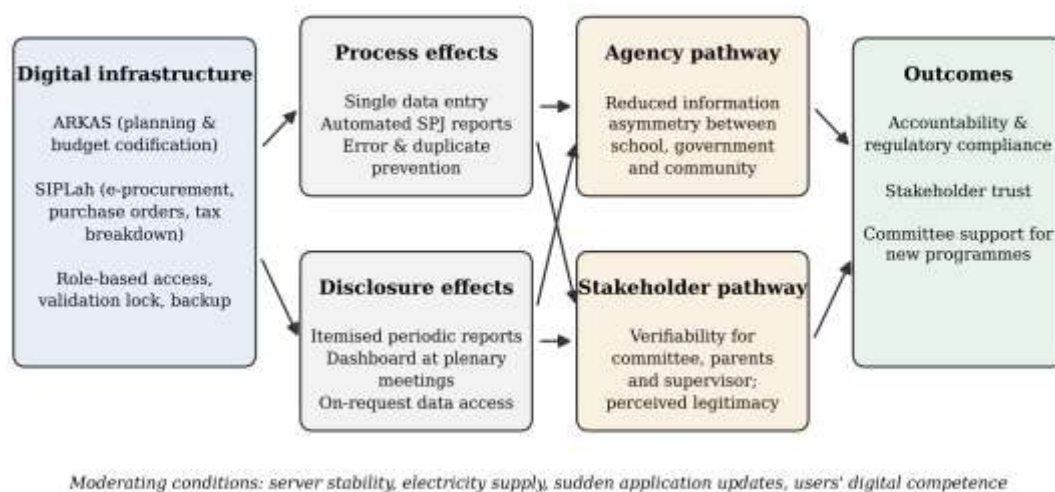


Figure 1. Process-and-disclosure model of digital financial management and stakeholder trust

DISCUSSION

The first finding is that the adoption of ARKAS and SIPLah was driven by regulatory compliance and modernisation at the same time, and that the system was quickly embedded in budget decisions. This supports the view that digitalisation in public services reshapes accounting practices and accountability relationships rather than merely automating them (Agostino et al., 2022). The principal's use of absorption data to reallocate funds is consistent with research showing that the value of educational data lies in its use for decisions rather than its mere availability (Mandinach & Schildkamp, 2021). It also echoes the role of principals' digital leadership in turning technology into organisational practice (Karakose et al., 2021; Hamzah et al., 2021). The handwritten annotations on the ARKAS work-sheet provide documentary evidence of this active use, although they also show that digital and paper-based routines still coexist.

The second finding concerns efficiency and accuracy. The treasurer's account of single-entry recording and validation locks aligns with evidence that integrated e-budgeting and e-reporting systems shorten report preparation and reduce administrative errors (Reknaningsih et al., 2026). Within agency theory, validation rules and role separation function as embedded internal controls that limit the agent's opportunities for error or manipulation, which corresponds to the finding that accounting information systems and internal control contribute to fraud prevention in BOS management (Al Amin et al., 2023). The SIPLah order, which itemises each product with its tax base and VAT, extends this control to procurement, consistent with evidence that e-purchasing reduces procurement fraud (Zahra et al., 2022). However, the constraints reported by the treasurer, namely server downtime, power outages, and sudden updates, show that efficiency depends on infrastructure that schools do not control. This confirms that technological, environmental, and people-related barriers condition digital transformation in education (Gkrimpizi et al., 2023; Timotheou et al., 2023) and that facilitating conditions shape technology use (Granić, 2022).

The third finding relates to security and reliability. Role-based access that separates input, approval, and maintenance is a digital form of segregation of duties. The claim of routine encrypted backups and continuous standby reflects the school's own account and could not be verified through the documents analysed. Because ARKAS and SIPLah are centrally hosted platforms, the school's security role is best understood as managing user access and local copies of data. This distinction matters because algorithmic and centralised public systems can redistribute responsibility in ways that create accountability gaps when failures occur (Bracci,

2023), and centralised databases can themselves become points of risk if access is misused (Adam & Fazekas, 2021).

The fourth and central finding is that stakeholder trust grew where digital records were actively disclosed. Committee members valued the move from lump-sum to itemised reports, and parents linked their trust to clear information and to visible improvements in facilities. This is consistent with stakeholder theory, which locates organisational legitimacy in relationships with multiple stakeholders (Bridoux & Stoelhorst, 2022), and with the view that trust in education is built through concrete interactions within educational settings (Niedlich et al., 2021). The findings also refine the transparency-trust literature. Consistent with Maisyarah (2026), the data suggest that digital transparency does not generate trust automatically; what stakeholders valued was the school's willingness to present, explain, and open its data, which resembles procedural fairness and information use. Design principles for digital transparency likewise stress that disclosed data must be understandable and usable by its audience (Matheus et al., 2021; Lnenicka & Nikiforova, 2021). Moreover, trust translated into concrete support for new programmes, which corresponds to the argument that transparency is most consequential in services with high discretion, such as education (Bauhr & Carlitz, 2021).

The fifth finding is that standardised codification eased supervision. The supervisor's experience of verifying data through the system rather than through physical files supports the potential of digital records to strengthen audit and oversight, a direction highlighted in reviews of public sector auditing (Mattei et al., 2021) and of data-driven fraud detection (Lyra et al., 2022). The traceability observed between ARKAS and SIPLah for the tarpaulin item illustrates what auditability means in practice: a budget line, a purchase order, a price, and a date that can be matched. Nevertheless, the supervisor's statement that the risk of fictitious budgeting is "almost zero" should be read with caution. Codification constrains how budgets are classified but cannot by itself verify that goods were delivered or that prices are reasonable, which is why handover reports and physical checks remain necessary. Anti-corruption research also warns that technology is effective only when accompanied by institutional enforcement and community participation (Paranata, 2025; Adam & Fazekas, 2021).

Taken together, these findings support the two propositions of this study. Digital systems reduced information asymmetry between the school as agent and the government and community as principals (agency pathway), and they increased the verifiability of financial information for stakeholders (stakeholder pathway). The process-and-disclosure model in Figure 1 adds to existing research by showing that the two pathways are complementary: process improvements generate reliable data, but trust depends on whether that data is disclosed in forms stakeholders can understand. Several limitations should be noted. The accounts of all six informants were highly positive, which may reflect social desirability, particularly among stakeholders who are close to the school. Six informants are fewer than the 9–17 interviews commonly needed to reach code saturation (Hennink & Kaiser, 2022), and the document analysis covered only two pages of the ARKAS work-sheet and one purchase order. In addition, references to SPP and to fees in the principal's and the parent's statements, although the school charges no tuition, were not probed further.

CONCLUSION

This study concludes that digital financial management systems strengthen transparency, accountability, and stakeholder trust in public elementary schools through two complementary pathways. Through the process pathway, ARKAS and SIPLah replace manual bookkeeping with single-entry recording, validation locks, role-based access, and standardised codification, which improves efficiency and accuracy, supports data-based budget allocation, and simplifies supervision. Through the disclosure pathway, the school presents itemised reports and dashboards to its committee and parents and opens its data on request, which makes financial information verifiable and builds trust that translates into support for school programmes. Document analysis confirmed that budget lines and purchase orders can be traced to each other, while technical constraints such as server downtime, power outages, and sudden application updates continue to limit the system's reliability.

Practically, school principals should treat digital financial systems not only as instruments of upward reporting to government but also as tools for regular, understandable disclosure to committees and parents. Education offices should improve infrastructure resilience, provide advance notice and training for application updates, and strengthen the capacity of treasurers and operators. Future research should involve more schools and more stakeholders, including teachers and a larger number of parents, combine interviews with observation and complete annual financial documents, and test the process-and-disclosure model quantitatively across different regions.

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