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Beyond Usability: Financial-Report Understandability in Digital Accounting for Indonesian Village-Owned Enterprises

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Abstract

Digital accounting can make transaction recording easier, but an easier system does not necessarily make its financial reports easier to understand. This study examines the difference between system usability and financial-report understandability in two Indonesian village-owned enterprises by comparing two versions of a digital accounting application. An explanatory mixed-methods approach was used. Thirty-five evaluators completed task-based usability assessments for both application versions, while 27 complete questionnaires provided additional evidence on technology acceptance. Qualitative evidence was obtained from interviews with four managers, six field visits, facilitator observations, and document reviews. The results show that the weighted mean usability score increased from 69.06 to 72.38 after manual account-code selection was replaced with administrator-defined mappings that connected familiar transaction descriptions to accounting entries. The improvement was most evident among operational users, while trained facilitators showed little change. Despite generally positive responses to the system, managers still needed assistance to identify profit or loss, understand financial position, and explain financial trends. These findings show that being able to operate an accounting system and being able to understand its financial outputs are related, but they are not the same outcome. Digital accounting systems designed for non-accountant users should therefore be evaluated not only for ease of use, but also for how well users can interpret and communicate the financial information they produce.

Keywords: accounting information systems; financial-report understandability; mixed methods; system usability; village-owned enterprises

1. Introduction

Village-owned enterprises (Badan Usaha Milik Desa, or BUMDes) combine commercial activities with stewardship of village assets and public-accountability obligations. Indonesian regulations require these organizations to produce structured financial and annual accountability reports (Government of Indonesia, 2021; Ministry of Villages, Development of Disadvantaged Regions, and Transmigration, 2022). In practice, managers are often selected because of community trust and organizational commitment rather than formal accounting education. Routine cash, inventory, credit, and fixed-asset transactions must nevertheless be translated into accounting records that can be explained to village governments and community forums.

Digital accounting is frequently proposed as a response to this capability gap. Evidence from BUMDes implementation links digital accounting with more transparent and efficient financial management and faster, more accurate reporting (Afridayani et al., 2025). However, introducing accounting technology does not by itself guarantee sustained adoption (Jackson & Allen, 2024).

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The SI BUMDES application illustrates this problem. Version 1.0 required operational users to select account codes and determine debit-credit classifications. Version 2.0 moved repeated classification into administrator-defined transaction mappings: an operator selects a familiar activity description, while the system applies controlled accounting rules. The redesign was expected to improve usability, but it did not automatically explain profit, financial position, cash movements, or trends in language appropriate for accountability meetings.

Prior BUMDes studies have emphasized transparency, implementation barriers, and digital system development (Afridayani et al., 2025; Fatimah et al., 2025). Less attention has been paid to the boundary between operating an accounting application and understanding the reports it produces. This study therefore asks: (1) how do descriptive usability results differ between SI BUMDES 1.0 and 2.0 across evaluator roles; (2) how do participants assess ease, usefulness, intention, and reported use of SI BUMDES 2.0; and (3) why can improved transaction-entry usability coexist with continued difficulty interpreting financial reports? The contribution is a dual-outcome evaluation lens that separates system interaction from report comprehension.

2. Literature Review

The Technology Acceptance Model distinguishes perceived usefulness from perceived ease of use and links these beliefs to intention and use (Davis, 1989). The System Usability Scale (SUS) provides a concise measure of perceived interaction quality (Brooke, 1996; Lewis, 2018). Both are valuable for evaluating digital accounting, but neither directly measures whether a user can explain accounting outputs or use them in a decision.

Financial-report understandability concerns whether users can locate, interpret, and communicate information about performance, financial position, and cash flows. Evidence suggests that infographics can improve understanding of financial accounting information, but visual presentation alone does not ensure that non-specialist readers fully understand it (Cohen et al., 2022). Research involving novice and low-literacy mobile-banking users found that interface modality can affect task completion and speed (Medhi et al., 2011); however, that context did not test accounting-report comprehension.

This dual-outcome lens is especially relevant to public-oriented digital transformation. Software can embed formal rules, but users remain responsible for explaining results and acting within local governance arrangements (Haug et al., 2024; Mergel et al., 2019). Simplification should therefore reduce unnecessary technical burden without making accounting logic opaque or increasing dependence on developers and facilitators.

3. Methods

This applied study used an explanatory mixed-methods evaluation (Creswell & Plano Clark, 2017) in two purposively selected East Java BUMDes with contrasting transaction patterns. Pulotondo Mulyo operates catering, liquefied petroleum gas consignment, and banking-agent services. Bahtera Berkah Sejahtera operates retail, livestock, egg production, and digital-payment services. The cases were selected to compare service-oriented and inventory-intensive workflows, not to represent all Indonesian BUMDes.

The quantitative exercise involved 35 evaluators who completed standardized transaction tasks on both system versions: two operational BUMDes users, two accounting experts, two information-technology experts, and 29 trained facilitators. Twenty-seven complete adapted-TAM questionnaires were available for descriptive analysis. Qualitative evidence comprised interviews with four BUMDes managers, six field visits, facilitator observations, a focus-group

discussion, transaction books, accountability-report drafts, and generated statements. Interview participants were analytically distinct from the SUS sample. The participant groups and evidence sources are summarized in Table 1.

Table 1 Participants and Evidence Sources

Evidence	Participants/source	n	Purpose
Comparative SUS	Operational users, experts, facilitators	35	Usability by role
Adapted TAM	Complete questionnaire responses	27	Descriptive acceptance
Interviews	Managers from two BUMDes	4	Interpretive experiences
Field/documents	Six visits, FGD, records, statements	-	Triangulation

Source: Authors' evaluation data.

Participants established an accounting period and business units, entered representative transactions, recorded a fixed asset, closed the period, and exported financial statements. Version 1.0 required manual account selection; version 2.0 used administrator-configured mappings between familiar transaction descriptions and accounting entries. The fixed sequence of version 1.0 followed by version 2.0 may have created a learning effect and is treated as a limitation.

The ten SUS items were scored using the standard conversion to a 0-100 scale. Only subgroup means were available; pooled means were therefore recomputed using subgroup sizes and interpreted descriptively. The adapted-TAM instrument contained two items each for perceived ease of use, perceived usefulness, behavioral intention, and reported use/satisfaction. Its means provide contextual evidence rather than a tested causal model. Interview and field materials were coded around accounting anxiety, transaction-entry effort, facilitator dependence, report interpretation, and presentation workarounds. Participation was voluntary, and personal names were replaced by role labels.

4. Results and Discussion

4.1 Usability and Technology-Acceptance Evidence

The weighted SUS mean increased from 69.06 for version 1.0 to 72.38 for version 2.0, a descriptive difference of 3.32 points. The subgroup pattern is more informative than the pooled result. The two operational users increased from 32.50 to 72.50, while trained facilitators changed only from 70.80 to 71.15. Accounting and information-technology experts each increased from 75.00 to 81.25. Removing repeated account-code selection may therefore matter most to operational non-accountants, but the operational subgroup is too small for generalization. Table 2 presents the descriptive SUS results by evaluator role.

Table 2 Descriptive SUS Comparison by Evaluator Role

Evaluator group	n	Version 1.0	Version 2.0	Change
Operational BUMDes users	2	32.50	72.50	+40.00
Accounting experts	2	75.00	81.25	+6.25
Information-technology experts	2	75.00	81.25	+6.25
Trained facilitators	29	70.80	71.15	+0.35
Weighted pooled mean	35	69.06	72.38	+3.32

Source: Authors' calculations from subgroup means.

The 27 complete adapted-TAM responses were favorable. Perceived usefulness was highest (4.48), followed by reported use/satisfaction (4.41), behavioral intention (4.30), and perceived ease of use (4.28). Participants associated usefulness with faster accountability preparation and less repetitive classification. These means do not establish relationships among TAM constructs, and reported use was not verified through independent system logs. Table 3 summarizes the adapted-TAM results and their interpretive boundaries.

Table 3 Descriptive Adapted-TAM Results (n = 27)

Construct	Mean	Interpretive boundary
Perceived usefulness	4.48	Perceived value, not objective productivity
Reported use/satisfaction	4.41	Self-report without system-log verification
Behavioral intention	4.30	Stated intention, not continued use
Perceived ease of use	4.28	Ease remains distinct from comprehension

Source: Authors' evaluation data.

4.2 The Usability-Understandability Gap

Qualitative evidence explains why favorable usability did not resolve report interpretation. In Pulotondo Mulyo, simplified cash-in and cash-out recording addressed repeated revisions and limited accounting staffing. Managers nevertheless needed assistance to locate profit or loss and explain multi-year trends; figures were manually transferred into slides and graphs for village meetings. In Bahtera Berkah Sejahtera, transaction mappings reduced the burden of accessing rigid account codes across retail, livestock, and inventory activities. The generated statements, however, still used accounting categories that were not automatically meaningful to non-accountant readers.

Across the two cases, the redesign improved one task while exposing another. Transaction-entry usability concerns whether a user can record an event efficiently and consistently. Financial-report understandability concerns whether the same user can identify performance, financial position, and cash changes and explain their implications. Automating classification does not itself teach interpretation. Favorable SUS or TAM evidence should therefore not be reported as proof of improved accounting literacy.

Theoretical and practical implications follow from this distinction. First, accounting-system evaluation should retain role-specific results because experts and trained facilitators can dominate pooled usability scores. Second, report support should be evaluated through comprehension questions, decision tasks, explanation accuracy, and error detection rather than acceptance scores alone. Third, designers should combine familiar transaction language with transparent mappings, plain-language explanations, standardized visual summaries, correction procedures, and continuing education. These features are design propositions arising from the evidence; their effectiveness was not tested in the present study.

4.3 Limitations and Research Agenda

The findings are bounded by subgroup-level SUS data, two operational-user questionnaires, a fixed testing order, short adapted-TAM constructs, and developer involvement in assistance. Report understandability was inferred from interviews and observed workarounds rather than measured with a validated comprehension instrument. Larger independent trials should retain individual responses, counterbalance version order, collect objective task logs, and measure usability and comprehension as separate outcomes.

5. Conclusion

SI BUMDES 2.0 reduced repeated accounting classification by mapping familiar transaction descriptions to administrator-controlled accounting entries. The weighted SUS mean increased descriptively from 69.06 to 72.38, and adapted-TAM responses were favorable. Yet managers in both cases continued to need assistance when locating profit or loss, interpreting financial position, and explaining trends. The central conclusion is that usability and financial-report understandability are related but distinct outcomes. Digital accounting for non-accountants should be judged by whether users can operate the system and whether they can correctly interpret its outputs. Future studies should test plain-language and visual reporting supports using validated comprehension measures and independent end-user samples.

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