

Article

Conceptual and empirical perspectives on fixed, non-fixed, and intangible assets in regional development

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Abstract

Effective public asset management supports accountable financial reporting and reliable service delivery. This study examines asset classification and management challenges in North Sumatra Province, Indonesia, focusing on fixed assets, assets described in the manuscript as nonfixed, and intangible assets. A descriptive qualitative approach combines a literature review with secondary document analysis. Sources include government regulations, public audit reports, and relevant academic publications. Content analysis explores the relationship between documented practices and stewardship, agency, resource management, and public value perspectives, with source triangulation used to compare evidence. The review identifies recurring concerns involving incomplete inventories, insufficient ownership documentation, weak reconciliation between administrative units, fragmented information systems, and limited staff capacity. Intangible assets present additional challenges concerning identification, licensing documentation, and recognition. The findings also indicate a need to distinguish inventories, construction in progress, disputed assets, and emergency equipment rather than treating them as a uniform nonfixed category. Recommended measures include clearer classification guidance, regular reconciliation, stronger internal controls, integrated asset records, and technical training. However, reliance on secondary sources, limited documentation of source selection, and the absence of field verification constrain the findings. Future research should examine audited records and managerial practices directly to assess classification accuracy and service implications more comprehensively.

Introduction

Public assets provide the physical and organizational foundations of government service delivery. Land, buildings, infrastructure, equipment, inventories, and digital resources support activities ranging from education and healthcare to public administration. Their significance extends beyond their monetary value because the availability and condition of these resources influence the continuity and quality of public services. Accordingly, public asset management requires reliable records, appropriate utilization, maintenance, and accountable reporting. Moore's (1995) public value perspective provides a useful foundation for understanding why government resources should be assessed through their contribution to society rather than their financial value alone.

In Indonesia, regional asset administration operates within a framework of government accounting standards and regulations governing regional property. Minister of Home Affairs Regulation No. 47 of 2021 establishes procedures for bookkeeping, inventory, and reporting of regional government property (Kementerian Dalam Negeri Republik Indonesia, 2021). These procedures connect the administrative identification of assets with the information required for oversight and financial reporting. Their implementation depends on consistent documentation and coordination among the units responsible for acquiring, using, recording, and safeguarding public resources.

A necessary starting point is accurate asset classification. Contrary to the initial formulation in this manuscript, regional assets should not be presented as three formally established categories consisting of fixed, nonfixed, and intangible assets. Indonesian Government Accounting Standards distinguish assets according to their characteristics and recognition requirements. Fixed assets are addressed under PSAP 07, inventories under PSAP 05, construction in progress under PSAP 08, and intangible assets under PSAP 14 (Komite Standar Akuntansi Pemerintahan, 2021). The expression "nonfixed assets" therefore requires clarification because it can combine resources with substantially different accounting treatments.

This distinction has practical consequences. Consumable supplies, unfinished construction, emergency equipment, and disputed land cannot be classified solely according to whether their use appears temporary. Durable emergency equipment may satisfy fixed asset criteria, while a dispute over ownership represents an issue requiring assessment of control, recognition, and disclosure rather than a separate asset category. Similarly, the absence of physical substance does not automatically establish that software access, a database, or a digital platform qualifies for recognition as an intangible asset. Classification must follow the relevant accounting criteria and supporting evidence.

To clarify the scope of the analysis, Table 1 summarizes the main distinctions relevant to the asset examples discussed in this study.

Table 1. Asset Classification Issues Relevant to Regional Government Management

Resource or condition	Relevant accounting reference	Main issue for assessment
Land, buildings, infrastructure, and durable equipment	PSAP 07: Fixed Assets	Recognition, measurement, useful life, ownership documentation, and utilization
Consumable supplies and other inventories	PSAP 05: Inventories	Stock records, physical verification, consumption, and valuation
Construction not yet completed	PSAP 08: Construction in Progress	Accumulated costs, completion status, and subsequent reclassification
Software, licences, and other potential intangible resources	PSAP 14: Intangible Assets	Identifiability, control, service potential, measurement, and contractual rights
Assets subject to disputes or incomplete transfer documentation	Applicable asset standard and supporting legal evidence	Assessment of recognition, control, disclosure, and documentation

Source: Authors' synthesis based on KSAP (2021).

Table 1 illustrates why a single "nonfixed" label is insufficient for analysing the resources identified in the original manuscript. Different resources require different records, verification procedures, and recognition decisions. Establishing these distinctions improves the basis for examining management weaknesses and prevents administrative conditions, such as incomplete documentation, from being confused with accounting classifications.

Empirical studies show that these issues extend beyond conceptual definitions. [Suharsono et al. \(2024\)](#), examining fixed asset accounting in Probolinggo, identify the importance of reconciliation between capital expenditure and asset recording. [Rahmadani et al. \(2024\)](#) investigate factors influencing regional government asset management, demonstrating the relevance of examining organizational conditions alongside formal procedures. Together, these studies support an assessment that connects accounting requirements with the capacity of regional organizations to implement them.

Asset management also involves decisions throughout the asset life cycle. [Anugraini and Puryandani \(2021\)](#) examine the disposal of fixed and intangible assets in Blora, showing the relevance of considering assets beyond their initial acquisition and recognition. Records must remain consistent when assets are transferred, become unusable, or are removed from government accounts. Consequently, reliable reporting depends on continuing administrative processes rather than a one-time inventory exercise.

Digitalization offers opportunities to improve these processes, but introducing an application does not by itself ensure accurate asset information. [Aisah and Djasuli \(2024\)](#) examine information technology implementation in regional property management in Sampang, providing a relevant perspective on the relationship between digital tools and administrative practice. At a broader level, the [OECD \(2020\)](#) emphasizes coherent, data-driven approaches to digital government. Applied to asset management, this perspective suggests that system integration should be supported by consistent classifications, identifiable responsibilities, and dependable source documentation.

Several theoretical perspectives help explain why these organizational arrangements matter. Agency theory highlights information asymmetry and the role of monitoring in relationships between resource managers and those to whom they are accountable ([Jensen & Meckling, 1976](#)). Stewardship theory emphasizes responsibility for managing organizational resources in pursuit of collective objectives ([Davis et al., 1997](#)). The resource-based view draws attention to the capabilities required to organize and deploy resources effectively ([Barney, 1991](#)). When applied cautiously to government, these perspectives suggest that asset management requires both accountability mechanisms and the organizational capacity to use resources for public purposes.

North Sumatra provides the setting for examining these interconnected issues. The province's asset management responsibilities encompass physical infrastructure, operational supplies, and digital resources distributed across government organizations. The present study focuses on how these resources are classified, documented, recorded, and coordinated within regional administration. Province-specific claims about asset values, uncertified land, or unrecorded balances require traceable audit evidence; they should not be inferred from findings reported in other regions.

The studies discussed above address individual aspects of regional asset management, including fixed asset accounting, disposal procedures, organizational factors, and information technology. A complementary analytical need is to examine how these dimensions interact across different asset types within a single regional context. In particular, conceptual ambiguity surrounding "nonfixed assets" can obscure the distinction between classification problems, documentation weaknesses, and difficulties in utilizing assets. Integrating these issues provides a clearer basis for identifying appropriate administrative responses.

Accordingly, this study examines asset classification and management challenges in the North Sumatra provincial government through a descriptive qualitative review of regulations, audit documentation, and relevant academic literature. It focuses on fixed assets, intangible assets, and the resources grouped under "nonfixed assets" in the original manuscript, while distinguishing their applicable accounting treatments. The study aims to identify gaps between formal requirements and documented practices and to develop recommendations concerning classification guidance, reconciliation, staff capacity, internal oversight, and digital information management. Its intended contribution is a more coherent understanding of how accounting accuracy and administrative capability jointly support accountable public asset management.

Literature Review

Public Assets and Regional Financial Management. Public assets are resources controlled by government entities that support the provision of services or generate economic benefits. Unlike commercial assets, their importance does not depend exclusively on revenue generation. Schools, hospitals, roads, and administrative systems can provide substantial service potential even when their use does not produce direct financial returns. The International Public Sector Accounting Standards Board's conceptual framework recognizes this distinctive role of public resources in accountability and decision-making (IPSASB, 2014).

Asset accounting and asset management are related but different activities. Accounting establishes the basis for recognition, measurement, presentation, and disclosure, whereas management concerns how resources are acquired, maintained, utilized, and disposed of. Kaganova and McKellar (2006) emphasize the strategic dimensions of government property management, including the relationship between property holdings and government objectives. Consequently, complete financial records are necessary but insufficient to demonstrate that assets are being used effectively.

ISO 55000 similarly conceptualizes asset management as coordinated organizational activity directed toward realizing value from assets (International Organization for Standardization, 2024). Applied to regional government, this perspective connects asset information with service priorities, risks, maintenance requirements, and resource allocation. The present study therefore considers both accounting accuracy and the administrative arrangements supporting asset use.

Fixed Assets and Their Management. Indonesian Government Accounting Standards define fixed assets as tangible resources with useful lives exceeding twelve months that are used in government activities or for public purposes. PSAP 07 addresses their recognition, classification, measurement, and reporting (Komite Standar Akuntansi Pemerintahan, 2021). Management requires reliable information on asset location, condition, custodianship, acquisition value, and supporting documentation.

Suharsono et al. (2024) highlight the importance of reconciling capital expenditure with fixed asset records. Reconciliation connects transactions recorded by financial units with resources administered by asset custodians. Differences between these records may arise from incomplete transfers, delayed registration, or inconsistent identification, although the presence and causes of such differences must be established from the documents examined.

International standards provide a comparative reference. IPSAS 45 addresses property, plant, and equipment and includes guidance concerning infrastructure and heritage assets. Issued in 2023 and effective from January 2025, it replaces IPSAS 17 (IPSASB, 2023). Accordingly, IPSAS 17 may remain relevant to historical reporting periods, while IPSAS 45 provides a more recent comparative framework. Neither should be presented as automatically replacing Indonesia's applicable national standards.

Clarifying the “Nonfixed Asset” Label. “Nonfixed assets” should not be treated as a uniform accounting category. The resources grouped under this label in the original manuscript include inventories, construction in progress, donated assets awaiting documentation, and emergency equipment. Their accounting treatment depends on their characteristics and the applicable recognition criteria.

Inventories are addressed under PSAP 05, while construction in progress is governed by PSAP 08. Durable emergency equipment may qualify as a fixed asset even when used only occasionally. Likewise, incomplete transfer documentation does not independently establish whether a resource is a current asset, fixed asset, or another category (KSAP, 2021).

This distinction separates an asset’s classification from its administrative condition. An ownership dispute, incomplete handover, or missing inventory number may create a recognition, control, or documentation issue without constituting a separate asset type. The study therefore uses “nonfixed” only to identify the heterogeneous grouping appearing in the source manuscript and examines its components individually.

Intangible Assets and Digital Resources. Intangible assets are identifiable nonmonetary assets without physical substance. Their recognition requires more than demonstrating that an application or digital resource is useful. Control, identifiability, service potential or economic benefits, and measurement requirements must also be considered. IPSAS 31 provides an international reference for intangible asset accounting (IPSASB, 2010), while PSAP 14 provides the relevant Indonesian government accounting framework (KSAP, 2021).

Software, licences, and contractual rights may qualify as intangible assets when the applicable criteria are satisfied. However, access to a nationally administered platform does not automatically establish that a regional government controls a separately recognizable asset. The underlying ownership arrangements, contractual terms, and rights of use require examination.

Anugraini and Puryandani (2021) examine the disposal of fixed and intangible assets, demonstrating that administrative responsibilities extend beyond initial recognition. Their study should not be interpreted as establishing that every government application is underrecognized. Instead, it supports examining the documentation and procedures governing an asset throughout its life cycle.

For digital resources, relevant evidence may include procurement documents, licence agreements, acceptance records, and information on useful life. These documents help distinguish a controlled asset from a subscription, service arrangement, or access entitlement. Recognition decisions should consequently follow the evidence associated with each resource rather than its technological label.

Information Systems and Internal Control. Information systems can support asset identification, transaction recording, reconciliation, and reporting. Nevertheless, their effectiveness depends on information quality, system quality, and users’ ability to operate them. DeLone and McLean (2003) distinguish these dimensions when assessing information system success. Their framework suggests that the existence of an application should not be equated with the reliability of its records or the benefits obtained from its use.

Aisah and Djasuli (2024) provide a relevant Indonesian examination of information technology implementation in regional property management. Rahmadani et al. (2024) also investigate organizational factors influencing regional asset management. Together, these studies support attention to staff capability and administrative processes alongside technology.

Internal control provides a complementary framework. COSO (2013) identifies control environment, risk assessment, control activities, information and communication, and monitoring as interconnected components. Applied to asset management, these components inform the examination of responsibilities, authorization procedures, physical verification, reconciliation, and corrective follow-up. They guide the analysis without establishing that particular controls are absent in North Sumatra before documentary evidence is assessed.

Theoretical Perspectives on Asset Governance. Stewardship theory emphasizes that managers may pursue organizational and collective objectives rather than exclusively personal interests (Davis et al., 1997). In regional asset management, this perspective directs attention to custodial responsibility, professional commitment, and the maintenance of resources for public service. It supports examining whether administrative arrangements enable staff to fulfil these responsibilities.

Agency theory provides a complementary explanation of oversight. Jensen and Meckling (1976) examine relationships involving delegated authority, differing interests, and information asymmetry. Applied to government, this perspective helps explain the importance of reporting and verification

where resource custodians possess information unavailable to supervisors or the public. It does not imply that documentation weaknesses necessarily result from deliberate misconduct.

The resource-based view emphasizes the organizational capabilities required to deploy resources effectively (Barney, 1991). Its application here concerns staff competence, routines, and information capabilities rather than an assumption that government entities pursue commercial competitive advantage. Public value theory establishes the corresponding service objective: resources should contribute to outcomes valued by the community (Moore, 1995).

Institutional theory helps explain why formal rules may be implemented differently across organizations. Scott (2014) distinguishes regulatory, normative, and cultural-cognitive influences on organizational conduct. This perspective suggests that compliance depends not only on written requirements but also on professional expectations and established practices. Suchman's (1995) legitimacy perspective further highlights the importance of examining whether formal reporting reflects substantive management practices rather than merely presenting an appearance of compliance.

Accountability and the Analytical Framework. Accountability requires more than making information available. Bovens (2007) conceptualizes it as a relationship in which an actor explains and justifies conduct to a forum capable of questioning and evaluating that conduct. For asset governance, this directs attention to identifiable responsibilities, supporting evidence, review mechanisms, and follow-up on deficiencies.

The study integrates these perspectives through four analytical dimensions: classification and recognition, documentation and reconciliation, organizational and digital capability, and accountability for asset use. These dimensions guide documentary analysis across fixed assets, intangible assets, and the resources grouped under the "nonfixed" label. They allow the review to distinguish conceptual classification problems from implementation weaknesses and limitations in the available evidence.

Because this study employs descriptive qualitative document analysis, it does not formulate statistical hypotheses. Instead, the framework guides examination of how accounting requirements, administrative capabilities, and oversight arrangements relate to documented asset management practices in North Sumatra. Recommendations are developed from the identified evidence rather than from presumed causal relationships.

Methods

This study adopts a descriptive qualitative approach combining a literature review and secondary document analysis to examine public asset management in the North Sumatra provincial government. The analysis focuses on practices and challenges concerning fixed assets, intangible assets, and the heterogeneous resources described as "nonfixed assets" in the source manuscript. The latter are examined according to their individual characteristics rather than treated as a formal accounting category.

Data sources comprise regulatory documents, particularly Minister of Home Affairs Regulation No. 47 of 2021 concerning procedures for bookkeeping, inventory, and reporting of regional government property; BPK audit reports issued in 2023 concerning regional government financial statements; and relevant academic publications. Recent empirical literature is complemented by foundational theoretical works used to interpret asset governance. Evidence concerning other regional governments provides comparative context and is distinguished from findings specifically documented for North Sumatra.

Qualitative content analysis is used to examine asset classification and recognition, documentation and reconciliation, organizational and digital capability, and accountability arrangements. The documented practices are interpreted through stewardship theory, agency theory, the resource-based view, and public value theory. The analysis identifies areas of consistency and divergence between formal requirements and the practices described in the reviewed documents.

Source triangulation compares information across regulations, audit documentation, and academic literature to assess consistency and identify gaps in the available evidence. Recommendations are developed from this synthesis, with attention to public accountability and digital asset administration. As the study relies on secondary documents without interviews or physical asset verification, its findings concern documented practices and cannot independently establish the completeness of asset records or the operational effectiveness of management arrangements.

Result and Discussion

Overview of the Asset Management Issues Identified. The documentary material presented in the manuscript identifies three recurring areas of concern: fixed asset documentation and reconciliation, classification of resources grouped as “nonfixed assets,” and identification of potential intangible assets. The findings are organized around these themes to distinguish accounting classifications from administrative conditions.

The source manuscript attributes several numerical statements to BPK’s 2023 examination, including total assets of IDR 29.4 trillion, a fixed asset proportion exceeding 85%, more than 200 uncertified land parcels, and IDR 145 billion in unrecorded fixed assets. However, the supplied material does not identify the report pages or supporting schedules for these figures. They are therefore excluded from the numerical presentation pending verification. The estimated values in the original asset composition table are likewise not treated as audited balances.

Fixed Asset Documentation and Reconciliation. The fixed asset examples described in the manuscript encompass land, buildings, equipment, machinery, roads, irrigation, and networks. The reported concerns relate principally to ownership documentation, completeness of records, maintenance information, and transfers between administrative units. Table 2 consolidates these concerns without reproducing unsupported monetary estimates.

Table 2. Fixed Asset Issues Described in the Source Manuscript

Asset group	Examples described	Reported management concern
Land	Land used for schools, healthcare facilities, government offices, and public facilities	Incomplete certification and potentially overlapping records
Buildings	Administrative offices, schools, and healthcare buildings	Incomplete registration and insufficient condition information
Equipment and machinery	Official vehicles, computers, medical equipment, generators, and heavy equipment	Incomplete transfer records and maintenance documentation
Roads, irrigation, and networks	Provincial roads, drainage systems, and irrigation infrastructure	Completeness of recognition, recording, and condition information
Assets received through grants or transfers	Equipment and other resources transferred between institutions	Incomplete handover documentation and delayed updates to asset records

Source: Authors’ synthesis of the supplied manuscript.

Table 2 shows that the concerns described extend across several stages of asset administration. Ownership documentation is particularly relevant to land, while transfer records and maintenance information feature prominently for equipment. Grant-funded and transferred resources introduce additional coordination requirements between receiving units and the officials responsible for financial and asset records. These findings describe the issues reported in the manuscript; they do not establish their frequency or monetary magnitude.

Classification of Resources Described as “Nonfixed Assets”. Beyond fixed asset administration, the review identifies a classification problem in the grouping labelled “nonfixed assets.” This grouping combines consumable inventories, durable emergency equipment, unfinished projects, donated resources, and disputed property. Table 3 separates these resources according to the accounting and administrative questions requiring examination.

Table 3. Classification Issues Within the “Nonfixed Asset” Grouping

Resource described	Classification or administrative issue
Office supplies, fuel, laboratory materials, and relief supplies	Identification and recording as inventories where the applicable criteria are met
Portable generators, evacuation tents, and inflatable boats	Assessment of useful life, intended use, and applicable capitalization policy
Unfinished construction projects	Assessment under construction-in-progress requirements
Donated equipment awaiting documentation	Assessment of control, recognition, valuation, and handover evidence
Land subject to ownership disputes	Examination of recognition, legal documentation, disclosure, and utilization constraints

Source: Authors’ synthesis of the manuscript, interpreted using KSAP (2021).

The grouping does not represent a single, consistent asset class. In particular, occasional use does not automatically prevent emergency equipment from qualifying as a fixed asset. Similarly, incomplete handover documentation and ownership disputes describe administrative or legal conditions rather than distinct accounting categories. The review therefore identifies classification ambiguity as a separate issue from incomplete registration.

Examples concerning Simalungun and Dairi also require attention to the study's institutional boundary. These district governments are separate reporting entities from the North Sumatra provincial government. Their experiences may provide comparative context, but they cannot be presented as findings about the provincial government without an explicit analytical justification.

Identification and Documentation of Potential Intangible Assets. The classification concerns extend to digital resources. The manuscript identifies software, licences, intellectual property, databases, and access to government platforms as potential intangible resources. However, their use by a provincial institution does not independently establish ownership, control, or recognition in its financial statements. Table 4 summarizes the evidence needed to distinguish these arrangements.

Table 4. Documentation Issues Concerning Potential Intangible Assets

Resource group	Examples described	Evidence requiring examination
Software and applications	Financial, planning, hospital, and administrative applications	Procurement records, contractual rights, acceptance documents, and useful-life information
Software licences	Licensed applications and digital archiving tools	Licence holder, duration, usage rights, and acquisition cost
Intellectual property	Copyrights, designs, and other registered rights	Registration, ownership, control, and measurement documentation
Databases	Administrative and service-related datasets	Evidence of control, identifiability, and satisfaction of recognition criteria
Access to national platforms	Access to centrally administered government systems	Whether the arrangement constitutes a controlled asset, a service, or an access entitlement

Source: Authors' synthesis of the manuscript, interpreted using PSAP 14 in KSAP (2021).

The material indicates a need to distinguish digital resources used in administration from intangible assets eligible for recognition. Software procurement, subscription arrangements, and access to centrally managed platforms may involve different rights and accounting treatments. Consequently, the examples listed in the manuscript cannot all be described as recorded provincial intangible assets without supporting contractual and accounting evidence.

Cross-Cutting Findings. Across the three areas, the review identifies recurring concerns involving classification consistency, supporting documentation, coordination between administrative units, and the reliability of digital records. These themes provide a basis for examining the relationship between asset administration and financial reporting. However, the available material does not independently verify the claimed use of cloud-based SIMDA, the absence of an intangible asset catalogue, or specific provincial software licensing deficiencies. Such statements require direct supporting documents before inclusion as established findings.

The results therefore establish a structured account of the issues described in the manuscript while distinguishing them from verified asset balances and confirmed audit findings. The implications of these themes for accountability, organizational capability, and public service delivery are addressed in the discussion.

Discussion

Asset Classification as a Foundation for Accountable Management. The review identifies classification ambiguity as an issue connecting the different asset groups discussed in the manuscript. The label "nonfixed assets" combines inventories, durable emergency equipment, unfinished construction, donated resources, and disputed property. These resources require different accounting assessments and administrative procedures. Treating them as a single category can obscure whether a problem concerns recognition, documentation, valuation, or utilization.

This distinction is consistent with Indonesian Government Accounting Standards, which address inventories, fixed assets, construction in progress, and intangible assets through separate standards (KSAP, 2021). Administrative uncertainty should therefore be examined alongside, rather than substituted for, the applicable accounting classification. For example, occasional use does not

automatically exclude emergency equipment from fixed asset recognition, while incomplete handover documentation requires an assessment of the underlying transaction and control arrangements.

From an institutional perspective, this ambiguity may reflect differences between formal requirements and established administrative understandings. Scott (2014) explains that organizational practices are shaped by regulatory, normative, and cultural-cognitive influences. Applied to this study, the implication is that issuing classification guidance may be insufficient unless staff share an understanding of how it applies to specific resources. However, the documentary review does not establish which institutional mechanism explains the classifications used in North Sumatra.

Documentation, Reconciliation, and Custodial Responsibility. The reported concerns involving ownership records, transfers, and asset registration highlight the importance of maintaining connections between physical resources and administrative information. An asset may support public services while its financial or custodial records remain incomplete. Conversely, an entry in an asset register does not independently demonstrate that the resource exists, remains usable, or is assigned to the appropriate unit.

Suharsono et al. (2024) emphasize reconciliation between capital expenditure and fixed asset records. This supports examining how procurement, financial reporting, and asset administration exchange information. Transfers and grants deserve particular attention because responsibility for documenting a transaction may be distributed across several institutions or units. Clear handover procedures and consistent identification can help maintain continuity in the records.

Stewardship theory provides a useful interpretation of these responsibilities. Davis et al. (1997) emphasize managerial commitment to collective organizational objectives. Within asset administration, custodianship includes safeguarding resources and maintaining information that enables their continued use. Nevertheless, incomplete documentation should not automatically be interpreted as evidence of negligence or misconduct; staff capacity, procedural ambiguity, and fragmented responsibilities require examination.

Agency theory provides a complementary rationale for verification. Jensen and Meckling (1976) explain how delegated responsibilities can generate information asymmetries. Asset registers, reconciliation, and review procedures can reduce these asymmetries by making custodial decisions and resource movements more observable. The present findings support considering these mechanisms, but do not demonstrate that any particular control failure caused the reported problems.

Digital Resources and Intangible Asset Recognition. The digital resource examples reveal a distinction between using technology and controlling a recognizable intangible asset. Software, licences, databases, and access rights may support similar administrative functions while involving different ownership and contractual arrangements. Accordingly, their accounting treatment cannot be determined solely by application names or their importance to government operations.

PSAP 14 and IPSAS 31 provide relevant recognition frameworks for intangible assets (KSAP, 2021; IPSASB, 2010). These frameworks support examining identifiability, control, service potential or economic benefits, and measurement. Access to a centrally administered platform may represent a service or entitlement rather than an asset controlled by the provincial government. Likewise, a licence agreement may confer rights that differ from ownership of the underlying software.

Anugraini and Puryandani (2021) also demonstrate the relevance of managing intangible assets beyond initial recognition through their examination of disposal procedures. Reliable administration therefore requires information about acquisition, contractual duration, continued use, and termination. A digital asset catalogue could support this process, but inclusion in such a catalogue should not itself be treated as evidence that recognition criteria are satisfied.

Information Quality and Organizational Capability. The review suggests that digitalization should be evaluated through the reliability and usefulness of information rather than the existence of an application. DeLone and McLean (2003) distinguish system quality, information quality, and service quality when assessing information system success. This perspective indicates that technically available systems may offer limited benefits when source records are incomplete or users apply inconsistent classifications.

Aisah and Djasuli (2024) provide relevant comparative evidence concerning technology implementation in regional property management. Rahmadani et al. (2024) likewise direct attention to organizational factors affecting asset management. These studies inform the interpretation of the present themes, although their findings cannot establish the conditions prevailing in the North Sumatra provincial government.

The resource-based view further emphasizes the capabilities needed to organize and deploy resources effectively (Barney, 1991). Applied here, these capabilities include technical accounting knowledge, familiarity with asset documentation, and coordination between units. Training should therefore address practical recognition and reconciliation decisions alongside application operation. Its effectiveness would need to be evaluated through improvements in records and procedures rather than participation counts alone.

Internal Control, Accountability, and Public Value. The cross-cutting themes are consistent with examining asset management as an internal control process. COSO (2013) identifies interconnected roles for the control environment, risk assessment, control activities, information and communication, and monitoring. These components provide a structure for assessing responsibilities, verification procedures, and the follow-up of unresolved discrepancies.

Accountability also requires identifiable relationships between those managing resources and those reviewing their conduct. Bovens (2007) emphasizes explanation, questioning, and evaluation rather than disclosure alone. For asset governance, this means that registers and reports should support reviewable decisions about acquisition, maintenance, transfer, and disposal. Information becomes more useful when responsibility for correcting identified deficiencies is explicit.

However, accurate reporting remains a means of supporting public service rather than the final objective of asset management. Moore (1995) emphasizes the creation of public value, while Kaganova and McKellar (2006) connect government property management with strategic objectives. These perspectives suggest assessing whether assets are available, maintained, and appropriately utilized. A financially well-documented resource may still provide limited public benefit if it remains idle or unsuitable for service needs.

Implications and Evidentiary Limits. The review supports prioritizing clearer classification guidance, documented transfers, regular reconciliation, and coordinated digital records. These measures address the recurring themes identified in the manuscript. Their implementation should distinguish provincial assets from resources belonging to district or municipal governments, because these institutions have separate reporting responsibilities.

The findings also establish an important boundary for interpretation. Comparative studies provide explanations and administrative lessons, while province-specific conclusions require traceable provincial evidence. The unverified balances and audit statements in the source manuscript cannot substantiate the scale or prevalence of deficiencies. Suchman's (1995) legitimacy perspective reinforces the importance of distinguishing formal claims of sound administration from evidence demonstrating how arrangements operate.

Accordingly, the study contributes a conceptual clarification of asset categories and a structured account of reported management concerns. Further examination of audit schedules, asset registers, contractual documents, and managerial practices is needed to determine the extent of these concerns in North Sumatra and assess whether proposed improvements strengthen reporting accuracy and public service delivery.

Conclusion

This study identifies recurring concerns in the documentary material on public asset management in North Sumatra, particularly asset classification, ownership documentation, reconciliation, digital records, and staff capacity. The review also clarifies that "nonfixed assets" should not be treated as a uniform accounting category, since inventories, construction in progress, emergency equipment, and disputed property require separate assessments. Similarly, software, licences, and access to government platforms should be recognized as intangible assets only when the applicable criteria are satisfied. These findings support clearer operational guidance, documented handover procedures, regular reconciliation, stronger internal oversight, and technical training that combines accounting knowledge with information system skills. Integrated digital records should facilitate verification while preserving responsibility for recognition decisions. However, the study is limited by reliance on secondary documents, incomplete traceability of several province-specific claims, and the absence of interviews, physical inspections, and direct examination of asset registers. Consequently, it cannot establish the monetary scale or prevalence of the reported deficiencies. Future research should verify audit evidence, distinguish provincial findings from district-level examples, and examine how asset management practices influence reporting accuracy, resource utilization, and public service delivery.

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