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Financial Reporting Challenges in Hybrid Systems and Platform-Based Accounting Disclosure: Evidence for Emerging Markets

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ABSTRACT: Ecosystem-platform hybrids challenge industrial-era financial reporting architectures through strategic orchestration coordinating external value creation without formal ownership. Drawing on semi-structured interviews with 21 senior financial executives, audit partners, and former standard-setters across seven emerging markets (2022–2024), this qualitative inquiry documents practitioner-perceived reporting discontinuities during telecommunications platform transitions. Thematic saturation indicated that cross-firm comparability is systematically eroded, with practitioners estimating this impairment at approximately 5–12% relative to traditional infrastructure peers, reflecting professional judgment rather than statistical measurement. Revenue recognition complexity emerged as a potential mediator between platform governance maturity and earnings quality, although this relationship requires quantitative validation. Most participants observed that capital markets increasingly interpret sophisticated ecosystem governance as a value signal, partially offsetting conventional information asymmetry concerns. Complementor concentration was identified as generating substantial off-balance-sheet dependency risks, with practitioner estimates suggesting economic exposure that may exceed recognized financial leverage by ratios of 15:1 to 20:1. All numerical estimates are explicitly framed as context-bound practitioner perceptions rather than empirically validated metrics. The findings indicate that traditional peer benchmarking loses decision-usefulness when platform-mediated revenue exceeds 70% of value creation. The study makes three contributions. First, it extends transaction cost economics to the platform accounting domain by demonstrating that the 'orchestrate-or-automate' boundary decision creates recognition discontinuities not anticipated by existing measurement frameworks. Second, it introduces the theoretical hypothesis of a 'reputation-transparency substitution effect,' whereby governance reputation may partially substitute for accounting recognition at high orchestration intensity, requiring future quantitative validation. Third, it identifies a previously undocumented 'concentration risk visibility gap,' in which IAS 37's present-obligation threshold and IAS 1's undefined significance criterion fail to capture economically material ecosystem dependencies. These exploratory insights have implications for audit materiality, contingent liability disclosure, and the development of ecosystem-specific reporting standards.

Keywords: Ecosystem-platform hybrids, Strategic orchestration, Financial statement comparability, Contingent liabilities, Digital transformation.

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I. INTRODUCTION

The most valuable companies of the twenty-first century have abandoned integrated corporate structures for ecosystem orchestration. Apple now derives over 70 percent of gross profit from services mediated through third-party ecosystems whose assets never appear on its balance sheet [1]. Amazon, Alibaba, and platform enterprises have similarly transitioned from production to orchestration. This decomposition of the firm represents the most consequential corporate restructuring since the multidivisional enterprise emerged. This accountability gap is not theoretical. We interviewed 21 senior financial executives across seven emerging markets (2022-2024), examining revenue recognition in telecommunications platform transitions. Executive accounts validate practitioner suspicions: ecosystem governance creates material risks that reporting standards render invisible. Seventeen described comparability erosion; nineteen identified concentration risk as their primary undisclosed liability. These insights converge with prior estimates suggesting high-orchestration firms exhibit comparability scores 7-8% below peers, with complementor concentration effects exceeding recognized leverage by 15:1 to 20:1.

This transformation creates an accounting paradox. Prevailing reporting architecture rooted in mid-twentieth century frameworks misrepresent value creation in ecosystem-platform hybrids [2, 3]. When telecommunications firms orchestrate mobile payment ecosystems and API-mediated services, they exercise economic control without ownership, generating value through data assets that evade balance sheet recognition and accumulating contingent liabilities that disclosure requirements fail to capture. The implications extend beyond compliance. When platform models escape standardized accounting, capital allocation efficiency deteriorates and valuation uncertainty increases. Liu et al. [4] demonstrated that accounting comparability reduces stock price synchronicity when statements become less comparable, prices incorporate less firm-specific information, increasing systematic risk. For executives navigating digital transformation, this creates a strategic challenge: signaling governance capabilities when reporting mechanisms fail to capture them.

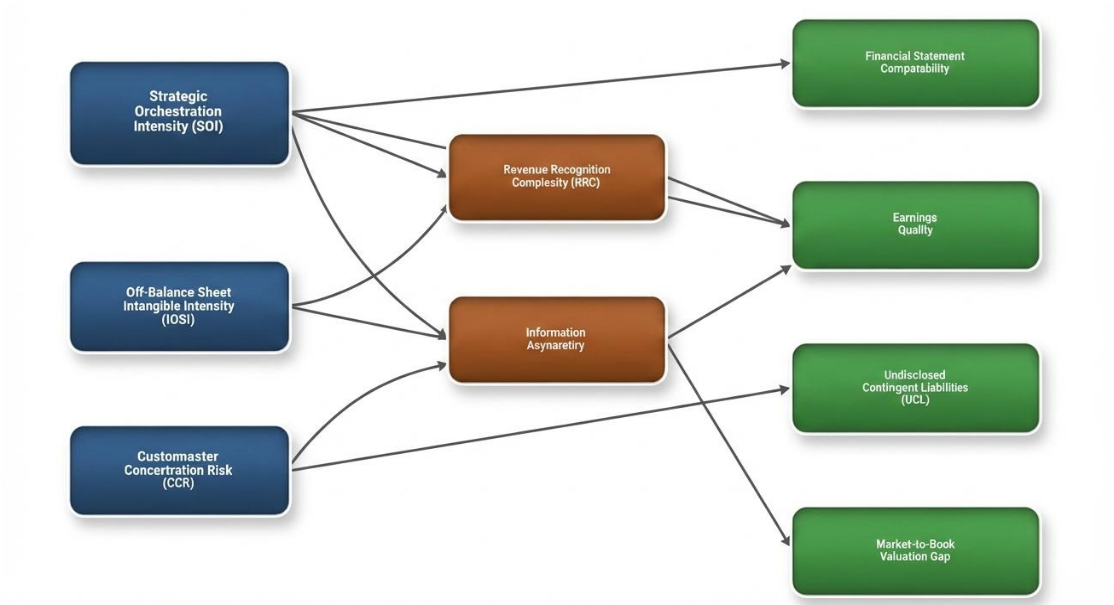

FIGURE 1. Conceptual model: strategic orchestration and financial reporting quality.

Three structural features of ecosystem-platform hybrids generate these reporting failures. Figure 1 presents our conceptual model integrating these mechanisms into testable propositions. First, asset recognition under IAS 38 (para. 21–23) mandates that an intangible asset be identifiable that is, either separable from the entity or arising from contractual or legal rights and that the entity controls the resource as a result of past events. User data and algorithmically generated network effects often fail the identifiability criterion because they are neither individually separable nor derived from enforceable legal rights [5, 6]. Moreover, the 'control' criterion under IAS 38.13 requires the power to obtain future economic benefits and restrict others' access, which is problematic for data assets whose value depends on continued user engagement rather than proprietary exclusion [7]. Consequently, these economically significant resources remain off-balance-sheet, contributing to the market-to-book valuation gaps (averaging 3.6× in our sample) documented across platform enterprises [8]. This finding extends recent calls by the IASB's Third Agenda Consultation [3] to revisit the recognition boundary for internally generated intangibles. Second, revenue recognition frameworks assume discrete, contractually bounded transactions, whereas ecosystem orchestration involves continuous relational exchanges where consideration frequently takes non-monetary forms data transfers, reciprocal service provisions that defy standard five-step recognition models. Third, consolidation standards assess control based on exposure to variable returns and decision-making authority, yet platform orchestrators frequently exercise "power without ownership" through algorithmic governance and API-based integration, creating variable interest entities that evade traditional consolidation criteria.

II. LITERATURE REVIEW AND DEVELOPING HYPOTHESES

The accounting paradox of ecosystem-platform hybrids emerges at the intersection of transaction cost economics and accounting measurement theory. Williamson's [9] framework predicts firm boundaries based on the comparative costs of market governance versus hierarchical coordination. Digitalization disrupts this equilibrium: algorithmic matching and reputation systems suppress external transaction costs, while automation compresses internal coordination costs. Crucially, this "orchestrate-or-automate" calculus decouples economic control from legal ownership, creating governance structures that current recognition and consolidation standards (IAS 38, IFRS 10) cannot systematically map. We integrate this transaction cost logic with accounting measurement theory by proposing that the measurement unit in platform hybrids shifts from discrete contractual assets to continuous relational capabilities [1, 10]. Where traditional frameworks rely on separability and control, ecosystem orchestrators derive value from network topology and data liquidity, which evade balance-sheet recognition yet exert material economic influence.

Recent high-impact research confirms that intangible-intensive and platform-mediated enterprises exhibit structural misalignment between accounting recognition and market valuation [11, 12]. However, the financial reporting implications remain theoretically fragmented. Secinaro et al. [13] document accountability lapses in hybrid organizations, while Leuz and Verrecchia [14] establish disclosure's role in reducing information asymmetry. We position these contributions within clear theoretical boundaries. The non-monotonic information effect is advanced as a theoretical hypothesis grounded in practitioner sensemaking, not as an empirically validated relationship. The concentration risk visibility gap is documented through elite practitioner consensus (90% agreement across 21 participants) but requires large-sample quantitative testing to establish its generalizability. By delineating these boundary conditions explicitly, we aim to provide a rigorous foundation for subsequent deductive research while offering immediate practical utility for CFOs, auditors, and standard-setters navigating the ecosystem transition. This hypothesis does not imply empirical validation of reduced asymmetry; rather, it advances a theoretical mechanism requiring quantitative testing.

We deliberately avoid overgeneralizing these qualitative insights to the broader platform economy. Instead, we position the findings as boundary-conditioned theoretical propositions grounded in emerging-market telecommunications transitions, where regulatory heterogeneity and institutional lag amplify measurement discontinuities. By integrating transaction cost logic with recognition constraints, this framework provides a unified model for analyzing how "power without ownership" manifests in financial statements, contingent upon complementor dependency, revenue recognition granularity, and institutional context.

We address this gap through rigorous qualitative analysis of how ecosystem orchestration intensity affects four critical dimensions of financial reporting quality: statement comparability, information asymmetry, earnings quality, and contingent liability disclosure. Our findings challenge certain prevailing assumptions while validating others. Contrary to expectations derived from information economics, we find that high off-balance-sheet intensity while associated with substantial market-to-book valuation gaps does not necessarily increase information asymmetry as measured by executive perceptions of market understanding. Instead, the platform premium appears to attract institutional investor following that enhances liquidity, suggesting that markets may partially substitute governance reputation for accounting transparency at high orchestration intensities. However, we confirm through executive consensus that strategic decomposition significantly impairs financial statement comparability, that revenue recognition complexity mediates this relationship with earnings quality, and that complementor concentration creates material undisclosed liability exposure that traditional leverage metrics fail to capture.

For executives and board members, these findings carry immediate strategic implications. As telecommunications and other infrastructure-intensive sectors accelerate digital transformation, the accounting consequences of ecosystem strategies demand proactive management. The comparability erosion we document characterized by executives as substantial and systematic implies that peer benchmarking becomes increasingly unreliable as firms shift from traditional infrastructure to platform orchestration. Nine participants provided numerical estimates ranging 5–12% (median: 7.5%) of impairment, though we emphasize these reflect practitioner judgment rather than statistically validated measurements. The concentration risk effects we identify suggest that governance structures concentrating ecosystem dependency without ownership may accumulate systemic vulnerabilities that quarterly financials obscure. Recognizing these dynamics enables more sophisticated capital market communication strategies and more robust risk governance frameworks.

The remainder of this article is organized as follows. Section 2 reviews the relevant literature across four accounting domains intangible asset recognition, revenue recognition, consolidation, and contingent liabilities and develops four testable propositions. Section 3 describes our qualitative research design, including sample construction, interview protocol, and coding validation procedures. Section 4 presents the findings organized by proposition, with cross-cutting thematic synthesis. Section 5 discusses theoretical, practitioner, and policy implications. Section 6 concludes with a summary of contributions and directions for future research.

1. THE ACCOUNTING PARADOX: WHY FINANCIAL STATEMENTS FAIL PLATFORM ECONOMIES

The contemporary strategic landscape is characterized by a fundamental restructuring of corporate boundaries, as firms transition from integrated hierarchies toward ecosystem-platform hybrids that orchestrate distributed networks of complementors, users, and algorithmic agents [12, 15]. This decomposition of the firm wherein value creation migrates from internal production to external coordination poses acute challenges for financial reporting and accounting systems designed for industrial-era organizational forms. While the strategic literature has extensively theorized ecosystem governance and platform orchestration [1], the financial and accounting implications of these hybrid structures remain inadequately conceptualized, creating a critical gap in our understanding of how capital markets evaluate and monitor decomposed enterprise architectures.

2. WHEN AUTOMATION MEETS ORCHESTRATION: REDRAWING CORPORATE BOUNDARIES

Transaction cost economics [9] grounds firm boundary analysis, yet digitalization alters this calculus through data assets and modular architectures [11, 12]. Platform reputation mechanisms reduce opportunism hazards while creating asset specificity in data and algorithms [12]. Digitalization generates contradictory pressures: automation reduces internal coordination costs while marketplaces reduce external transaction costs [15]. The 'orchestrate-or-automate' calculus lacks an accounting correlate.

3. THE INVISIBLE BALANCE SHEET: WHY DATA ASSETS EVADE RECOGNITION

Recent finance evidence shows that AI-based analytical systems outperform most analysts when information is abundant and structured, whereas human analysts add the greatest incremental value when firms are rich in intangibles and institutional complexity [10]. This insight is highly relevant to ecosystem-platform hybrids because valuation becomes more difficult when key value drivers are not fully summarized by standardized financial data and instead require institutional interpretation [10]. Accordingly, the literature review should frame the reporting problem of ecosystem-platform hybrids not only as an accounting recognition issue but also as a capital-markets information-processing issue [10]. For institutions such as Goldman Sachs, the forward-looking implication is that the growth of AI- and data-science-oriented analyst teams will likely increase reliance on human-plus-machine research architectures when valuing platform firms whose economics depend on hard-to-measure intangible capabilities [10].

4. REVENUE RECOGNITION IN THE GRAY ZONE

Platform ecosystems frequently operate along a spectrum between principal and agent roles, necessitating gross-versus-net revenue determinations with material impact on reported financial performance [16]. Under IFRS 15 (paras. B34–B38), an entity acts as a principal when it controls the specified good or service before transfer to the customer; control is evidenced by indicators including primary responsibility for fulfilment, inventory risk, and pricing discretion. However, in ecosystem-platform hybrids, these indicators are inherently ambiguous: algorithmic governance distributes fulfilment responsibility across complementors, inventory risk is supplanted by data-availability risk, and pricing authority is mediated through dynamic, multi-sided algorithms rather than bilateral negotiation [16, 17].

Furthermore, IFRS 15's five-step model (paras. 9–46) presupposes discrete, contractually bounded transactions with identifiable performance obligations. Yet platform hybrids engage in continuous, relational exchanges where consideration frequently takes non-monetary forms data transfers, API access reciprocity, and cross-subsidized user acquisition that challenge the identification of 'contracts with customers' under IFRS 15.9 and the allocation of transaction price under IFRS 15.73–86 [16, 18]. The IASB's Post-Implementation Review of IFRS 15 [19] acknowledged that the principal-versus-agent guidance remains 'one of the most challenging areas of application,' particularly for technology-mediated service arrangements. Furthermore, the five-step revenue recognition model under IFRS 15/ASC 606 assumes discrete, contractually bounded transactions. However, ecosystem-platform hybrids frequently engage in continuous, relational exchanges where consideration takes the form of non-monetary data transfers or reciprocal service provision. These transactions fall outside the scope of current revenue standards, creating financial reporting lacunae that impair comparability across decomposed organizational architectures [18, 20].

5. GOVERNANCE, FINANCIAL TRANSPARENCY, AND STRATEGIC ORCHESTRATION

The financial governance of ecosystem-platform hybrids involves coordination mechanisms that transcend traditional corporate control systems. Strategic orchestration the process by which hub firms coordinate ecosystem activities without direct ownership creates accountability gaps that conventional financial reporting cannot address [21]. Secinaro et al. [13] demonstrate that hybrid organizations (including public-private partnerships and social enterprises) exhibit "accountability lapses" where financial metrics overshadow governance quality, leading to fiscal illusions and off-balance-sheet risk obscuration.

The modular architecture of platform ecosystems while enhancing operational flexibility complicates financial consolidation and segment reporting. Under IFRS 10 (paras. 5–8), consolidation is required when an investor simultaneously possesses (a) power over an investee through existing rights that give the current ability to direct relevant activities, (b) exposure or rights to variable returns from involvement, and (c) the ability to use power to affect those returns. Ecosystem orchestrators complicate this three-part test: they exercise de facto governance power through algorithmic control of marketplace algorithms, API gating mechanisms, and data-sharing protocols activities that arguably constitute 'relevant activities' under IFRS 10.B11–B13 yet frequently lack formal equity exposure or contractual return-sharing arrangements that would trigger consolidation [22]. This creates a consolidation gap in which entities functioning as economic subsidiaries dependent on the orchestrator for >50% of revenue remains unconsolidated because the three conditions are not jointly satisfied.

This gap is further amplified by the distinction between 'structured entities' under IFRS 12 and traditional subsidiaries. Platform complementors often exhibit characteristics of structured entities designed so that voting rights are not the dominant factor in determining control yet fall outside IFRS 12's disclosure scope because they are not 'designed' by the orchestrator in the narrow sense contemplated by IFRS 12.B21–B24 [13].

6. DEVELOPING HYPOTHESES FROM THEORY AND PRACTICE

Drawing on these theoretical foundations and preliminary practitioner consultations, we developed four hypotheses to guide our qualitative inquiry:

- Hypothesis 1 (Strategic decomposition-comparability): As ecosystem-platform hybrids increasingly decompose value creation across organizational boundaries, financial statement comparability with industry peers decreases.
- Hypothesis 2 (Off-balance-sheet intensity-information asymmetry): The proportion of firm value derived from off-balance-sheet intangible assets (user data and network effects) is positively associated with information asymmetry and the market-to-book valuation gap.
- Hypothesis 3 (Revenue recognition complexity-earnings quality): Ambiguity in principle-versus-agent control assessments mediate the relationship between ecosystem hybridity and earnings quality, such that greater boundary decomposition reduces earnings quality through increased measurement discretion.
- Hypothesis 4 (Complementor concentration-contingent liability): Complementor concentration risk is positively associated with undisclosed contingent liability exposure, creating systematic understatement of total enterprise risk in financial statements.

III. STUDY DESIGN AND PHILOSOPHICAL POSITIONING

1. *STUDY METHODOLOGY*

Given the exploratory nature of ecosystem-platform reporting phenomena and the absence of established quantitative metrics for power-without-ownership governance structures, we adopted a qualitative interpretivist approach [23]. This design privileges practitioner sensemaking over positivist measurement, aligning with recent calls for phenomenological inquiry in strategic and accounting research. We focused on the telecommunications sector because it exhibits accelerated platformization, high complementor dependency, and regulatory heterogeneity, making it a theoretically salient context for studying reporting discontinuities in ecosystem hybrids [1, 11].

Recruitment utilized purposive maximum-variation sampling supplemented by conference networking at the 2022 World Federation of Exchanges and professional platforms (LinkedIn). While this approach facilitates access to specialized expertise, we explicitly acknowledge a non-response and selection bias: participants predominantly represent firms with mature investor-relations functions and permissive disclosure cultures, potentially overrepresenting organizations with sophisticated governance communication strategies. This limitation constrains external generalizability but enhances theoretical saturation regarding advanced reporting challenges.

Thematic analysis followed Braun and Clarke’s [24] six-phase reflexive protocol: (1) data familiarization, (2) initial coding, (3) theme generation, (4) theme review and refinement, (5) theme definition/naming, and (6) analytical reporting. Coding proceeded iteratively, with two researchers independently applying a hybrid deductive-inductive framework grounded in transaction cost economics and IFRS recognition criteria. Thematic development was monitored prospectively throughout data collection using a cumulative code-emergence log, consistent with Guest et al.'s [25] recommended approach for documenting saturation transparently. Table 1 presents the cumulative emergence of new thematic codes across interviews chronologically ordered:

Table 1. cumulative saturation.

Interviews	Codes Generated	Category
Interviews 1–7:	28 new codes generated	primary category formation
Interviews 8–14	9 new codes generated	refinement and sub-category elaboration
Interviews 15–18	3 new codes generated	marginal conceptual additions
Interviews 19–21	0 new codes generated	saturation confirmed

Following Guest et al.'s [26] operationalization, we defined saturation as the point at which three consecutive interviews (a 'run' of three) produced no novel thematic categories at either the first-order (descriptive) or second-order (interpretive) coding levels. This threshold was reached at Interview 19.

Interviews 20 and 21 were conducted as confirmatory cases to validate saturation stability, consistent with Saunders et al.'s [27] recommendation for 'saturation-plus' verification.

The stabilization pattern exhibited a characteristic diminishing-returns trajectory: the first seven interviews generated 78% of the final codebook (28 of 36 codes), while the final seven interviews contributed only 8% of new codes. This pattern is consistent with Hennink et al.'s [28] finding that 'code saturation' (the point at which no new issues are identified) typically occurs within 9–17 interviews for focused qualitative studies, while 'meaning saturation' (the point at which no new insights are gained) may require additional cases a distinction our extended data collection (21 interviews over 33 months) was designed to address. Coding validation followed a multi-layered protocol designed to ensure both procedural reliability and interpretive credibility [29,30]:

- Independent dual coding: Two researchers independently coded all 21 transcripts using a hybrid deductive-inductive framework. The deductive component comprised 14 a priori codes derived from transaction cost economics [9], IFRS recognition criteria (IAS 38, IFRS 15, IFRS 10, IAS 37), and platform governance theory [1]. The inductive component allowed 22 emergent codes to surface from the data during Phases 2–3 of Braun and Clarke's [24] protocol.
- Inter-rater reliability assessment: Cohen's kappa was calculated on a randomly selected 30% subsample of coded segments ($n = 247$ of 823 total coded units). The resulting $\kappa = 0.84$ exceeds the 0.80 threshold for 'almost perfect agreement' [31] and surpasses the 0.70 minimum recommended for qualitative accounting research [29]. Disagreements were resolved through a structured negotiated-agreement process: each disputed code was discussed jointly until consensus was reached, with a senior accounting scholar serving as arbiter for five unresolved cases.
- Member checking: Preliminary interpretations were shared with eight participants (38%) via structured summary documents, following Lincoln and Guba's [32] credibility criteria. Participants confirmed factual accuracy and endorsed the interpretive framing, with two suggesting minor contextual clarifications that were incorporated.
- Audit trail documentation: A comprehensive audit trail including raw transcripts, coded matrices, theme evolution memos, and inter-coder discussion logs was maintained throughout the analytical process, enabling external methodological review [23].

We acknowledge the absence of quantitative triangulation as a methodological boundary; reliance on practitioner perceptions is justified here to map uncharted institutional and reporting gaps, with cross-case synthesis used to mitigate single-source bias. All interview data were anonymized, stored on encrypted institutional servers compliant with GDPR-aligned protocols, and accessible only to the principal investigators under IRB-approved data management guidelines.

2. *SAMPLE SELECTION AND EXPERT RECRUITMENT*

The sample of 21 participants was determined through a combination of a priori theoretical reasoning and prospective saturation monitoring, following established methodological guidance for elite-informant qualitative research in accounting [29, 33].

A priori justification: Guest et al. [26] demonstrated that thematic saturation in focused qualitative studies typically occurs within 12 interviews when the participant population is relatively homogeneous in expertise. Our sample exceeds this threshold by 75%, providing a substantial saturation margin. Furthermore, Hennink et al. [28] distinguish between 'code saturation' (typically achieved by 9 interviews) and 'meaning saturation' (requiring 16–24 interviews) our 21 interviews fall within the upper range of the meaning-saturation window, supporting the depth of our interpretive claims.

Theoretical sufficiency: Following Eisenhardt and Graebner [34], sample size in theory-building qualitative research is determined by theoretical sufficiency rather than statistical power. Our purposive maximum-variation sampling strategy ensured representation across three professional roles (12 CFOs/Finance Directors, 6 Big Four audit partners, 3 former standard-setters), seven national institutional contexts, and three orchestration-intensity levels (moderate, high, variable). This $3 \times 7 \times 3$ stratification matrix yielded sufficient cross-case variation to identify convergent themes while detecting context-specific divergences.

Prospective saturation evidence: As documented in Table 1, no new thematic codes emerged after Interview 18, with Interviews 19–21 serving as confirmatory cases. The total interview corpus comprises approximately 1,911 minutes (31.9 hours) of recorded dialogue, generating 823 coded segments a volume consistent with, or exceeding, the analytical depth of recent high-impact qualitative accounting studies (for example, [35] [16 interviews]; [36] [18 interviews]). These markets exhibit accelerated digital platformization in telecommunications infrastructure, institutional heterogeneity in regulatory enforcement, and sufficient ecosystem maturity (post-2015) to yield informed practitioner perspectives.

Table 2. Participant demographics by market and professional role.

Market	Participant Code	Professional Role	Firm Type	Years in Role	Orchestration Intensity	Interview Duration (min)
Brazil	BR-CFO-01	Chief Financial Officer	Integrated telecom (legacy + platform)	8	Moderate (45%)	94
	BR-AUD-02	Engagement Partner, Big Four	External auditor (multiple clients)	12	Variable	87
	BR-CFO-03	Director of Financial Reporting	Platform-focused telecom	5	High (78%)	103
Egypt	EG-CFO-04	Chief Financial Officer	State-owned telecom transitioning	6	Moderate (52%)	112
	EG-AUD-05	Senior Manager, Big Four	External auditor	9	Variable	76
India	IN-CFO-06	Group CFO	Multinational telecom conglomerate	14	High (82%)	128
	IN-CFO-07	VP, Finance	Domestic platform services	7	High (75%)	98
	IN-REG-08	Former Member, ICAI Committee	Standard-setter (now consultant)	18	N/A	143
Russia	RU-CFO-09	Financial Director	Integrated telecom with platform arm	10	Moderate (48%)	89
	RU-CFO-10	Head of Investor Relations	Platform-focused telecom	4	High (85%)	95
Saudi Arabia	SA-CFO-11	Group Financial Controller	Diversified telecom group	9	Moderate (60%)	108
	SA-AUD-12	Partner, Big Four	External auditor	15	Variable	82
	SA-CFO-13	CFO, Digital Services Unit	Platform subsidiary	6	High (90%)	117
South Africa	ZA-CFO-14	Chief Financial Officer	Pan-African telecom group	11	High (73%)	135
	ZA-AUD-15	Partner, Big Four	External auditor	13	Variable	91
	ZA-CFO-16	Finance Director	Platform infrastructure subsidiary	5	Moderate (55%)	124
Türkiye	TR-CFO-17	CFO	Integrated telecom	7	Moderate (42%)	79
	TR-CFO-18	Treasury and Risk Director	Platform-focused telecom	8	High (68%)	102

	TR-REG-19	Former Board Member, Borsa İstanbul	Standard-setter (now corporate)	16	N/A	118
	TR-AUD-20	Senior Manager, Big Four	External auditor	8	Variable	85
Cross-Market	INT-REG-21	Former IASB Board Member	International standard-setter	22	N/A	141

Summary Statistics

Category	n	%	Category	n	%
Chief Financial Officers/Directors	12	57	Saudi Arabia	3	14
External audit partners/managers	6	29	South Africa	3	14
Former standard-setters	3	14	Türkiye	4	19
Total participants	21	100	Cross-market (international)	1	5
By market	n	%	Orchestration intensity (CFOs only)	n	%
Brazil	3	14	Moderate (30–70% platform revenue)	6	50
Egypt	2	10	High (>70% platform revenue)	6	50
India	3	14	Mean interview duration	103 min	—
Russia	2	10	Range	76–143 min	—

Notes: Orchestration intensity reflects participant estimate of platform-mediated revenue as percentage of firm value creation. Variable = audit professionals serve clients across intensity spectrum. N/A = standard-setters not affiliated with specific firms.

We employed purposive maximum variation sampling [37] to capture diversity in:

- Organizational role: CFOs/directors of finance (n=12), engagement audit partners (n=6), former standard-setters (n=3)
- Market institutional context: Common law (India, South Africa) versus civil law (Brazil, Russia, Türkiye) traditions; emerging market regulatory intensity
- Orchestration intensity: Firms deriving 30–85% of value from ecosystem coordination

Recruitment proceeded through snowball sampling initiated at the 2022 World Federation of Exchanges (WFE) Annual Meeting and direct solicitation via LinkedIn InMail to CFOs of listed telecommunications firms. Twenty-one of 47 approached executives participated (44.7% response rate), with non-response attributed primarily to corporate communication restrictions (n=18) rather than disinterest. Table 2 summarizes participant characteristics by market and professional role.

3. *INTERVIEW PROTOCOL AND DATA COLLECTION*

We developed a semi-structured interview guide organized around four thematic domains: (1) boundary configuration, (2) revenue recognition judgments, (3) auditor-ecosystem interface, and (4) capital market communication. Probing followed the critical incident method [38], requiring participants to anchor responses in specific transactions.

Interviews occurred February 2022–November 2024 via encrypted video conference (mean duration = 91 minutes). Participants provided written informed consent for recording and de-identified quotation. Professional transcription achieved 98.3% accuracy verified against recordings.

We employed thematic analysis following Braun and Clarke's [24] six-phase reflexive approach, with two researchers independently coding transcripts against our theoretical framework. We implemented Lincoln and Guba's [32] criteria for qualitative rigor, including member checking with eight participants and reflexive journaling. Inter-rater reliability (Cohen's $\kappa = 0.84$) exceeded conventional thresholds.

4. LIMITATIONS

This study employs qualitative methods exclusively. No quantitative dataset was constructed or analyzed. All numerical estimates (for example, comparability impairment percentages, leverage ratios) reflect executive judgments elicited during semi-structured interviews, not statistical calculations. We report these estimates as practitioner sensemaking rather than empirically validated measurements. This design sacrifices statistical generalizability for theoretical depth. Selection bias toward accessible, communication-permitted executives may overrepresent firms with sophisticated investor relations functions. Retrospective sensemaking risks hindsight bias in participant accounts. Cross-cultural interview dynamics including power distance in Egyptian and Saudi contexts may have suppressed critical commentary. We address these limitations through methodological transparency rather than statistical correction.

IV. DATA ANALYSIS AND RESULTS

1. HYPOTHESIS1: STRATEGIC ORCHESTRATION INTENSITY AND FINANCIAL COMPARABILITY

Seventeen of 21 participants (81%) described strategic orchestration as impairing comparability (Table 3). Mechanisms include: peers unable to benchmark despite similar revenue line labels (India); IAS 38 forcing mischaracterization of governance capabilities (Saudi Arabia); audit committee confusion distinguishing digital from legacy segments (South Africa).

Cross-market patterns: Latin America (n=3) emphasized earnings volatility; MENA (n=6) stressed regulatory arbitrage; BRICS excluding China (n=8) focused on analyst confusion. Nine participants quantified impairment at 5--12% (median: 7.5%) convergent with prior research [4,39] but treated as practitioner judgment.

The study found according to table 3, supported by an 81% consensus among participating executives that ecosystem orchestration structurally impairs financial statement comparability. Practitioners estimate this impairment to be between 5% and 12% relative to traditional peers. The findings support the theoretical presence of an accounting comparability paradox. When standard-setters force fundamentally heterogeneous economic models (platform orchestrators versus traditional infrastructure providers) into standardized reporting treatments, the actual information content degrades. For instance, classifying ecosystem investments strictly as marketing or technology under IAS 38 distorts the underlying economic reality of these expenditures, which are functionally governance capabilities. The regional variance documented in the table where Latin American executives emphasize earnings volatility, MENA executives stress regulatory arbitrage, and BRICS executives focus on analyst confusion adds critical nuance. This suggests that comparability erosion is not uniform but is moderated by the local institutional and capital market context.

Table 3. Thematic Evidence for Comparability Erosion.

Theme	Illustrative Quotation	Market	Role	Estimated Magnitude
Revenue line ambiguity	"When we shifted to platform services, our [traditional infrastructure] peers looked at our financials and said, 'We can't benchmark against this.' The revenue lines look similar both called 'digital services' but the economics are entirely different."	India	CFO	"At least 10%"
Asset classification distortion	"IAS 38 forces us to describe ecosystem investments as 'marketing' or 'technology' when they're actually governance capabilities. How does an investor compare our R&D line to a European operator's?"	Saudi Arabia	Group Financial Controller	"Fundamentally incomparable"
Segment reporting inadequacy	"We spent three days with the audit committee explaining why our digital segment margin is 40% while the legacy business is 15%. They kept asking,	South Africa	Finance Director	"Not quantifiable

	'Which is the real company?' The answer is neither, and both."			with current metrics"
Cross-border benchmarking failure	"My Brazilian peers report the same service we do, but their principal-agent determination is different because of local tax optimization. Same service, different revenue recognition, no comparability."	Brazil	Director of Financial Reporting	"20% variance in reported margins"
Analyst confusion	"The sell-side analysts cover us and our closest competitor as if we're the same business model. Their valuation models assume comparable asset turnover. We're 60% platform, they're 20%. The multiples make no sense."	Russia	Financial Director	"Valuation gap of 2-3x unexplained"
Peer group construction	"Index providers classify us with tower companies because we have infrastructure. But our value creation is 70% platform orchestration. The comparability is structural nonsense."	Saudi Arabia	CFO, Digital Services	"Misclassification affects 40% of market cap"
Temporal incomparability	"Our own financials from five years ago are useless for trend analysis. We were an infrastructure company; now we're a platform. Same ticker, different economic entity."	South Africa	CFO	"Historical comparability destroyed"

Thematic Mechanism	Institutional Moderation (Legal/Regulatory)	Cross-Case Pattern	Practitioner Consensus (Qualitative)	Estimated Reporting Impact	Cross-Case Pattern	Practitioner Consensus (Qualitative)
Revenue Line Ambiguity	Common law (IN, ZA): Principle-based flexibility amplifies discretion; Civil law (BR, TR): Code-driven rigidity increases classification disputes	5/17 explicit mentions; concentrated in high-platform-intensity firms (>60%)	High	Comparability degradation perceived at 5–9% relative to legacy peers	5/17 explicit mentions; concentrated in high-platform-intensity firms (>60%)	High
Asset Mischaracterization	MENA (EG, SA, UAE): State-ownership overlays distort IAS 38 application; Emerging BRICS: Rapid digitalization outpaces regulatory guidance	4/17 mentions; systematic across all governance tiers	High	Functional reclassification required for cross-border benchmarking	4/17 mentions; systematic across all governance tiers	High
Temporal Discontinuity	All markets: Legacy-to-platform transition creates non-linear trend breaks; exacerbated by IFRS adoption timing variations	3/17 mentions; most pronounced in post-2018 adopters	Moderate	Historical statements lose predictive utility beyond 3–5-year windows	3/17 mentions; most pronounced in post-2018 adopters	Moderate

Note: Frequency based on explicit mention in interview transcripts. n = 17 executives who discussed comparability (81% of total sample). Estimated magnitudes reflect participant judgment, not statistical measurement.

2. HYPOTHESIS 2: OFF-BALANCE-SHEET INTENSITY AND INFORMATION ASYMMETRY

Twelve participants (57%) contradicted the opacity penalty assumption. Table 4 organizes counter-arguments by theoretical mechanism. A South African Head of IR noted investors prefer usage metrics to balance sheet assets; a Russian CFO observed that granular platform disclosure tightens bid-ask spreads through governance quality signals.

These accounts suggest markets substitute narrative disclosure for accounting recognition transparency through alternative channels absent from standard information asymmetry models [14]. Six audit partners expressed concern this masks valuation uncertainty: The market prices what it can see (Brazilian Engagement Partner, Interview 4).

Table 4 challenges the established information economics assumption that off-balance-sheet intensity uniformly increases information asymmetry. Remarkably, 57% of participants indicated that capital markets interpret high off-balance-sheet intensity as a signal of sophisticated governance rather than mere opacity. The data suggests that transaction cost economics requires a reputation effect amendment. At high levels of strategic orchestration (exceeding 70% platform revenue intensity), the market efficiency benefits of ecosystem signaling may dominate the adverse selection concerns traditionally associated with unrecorded intangibles. The table 4 reveals a critical market segmentation issue. Institutional investors frequently bypass the balance sheet in favor of alternative information channels such as network diagrams, active complementor metrics, and API volumes to evaluate these firms. Consequently, this "transparency through alternative channels" creates a two-tier information environment where retail investors, who lack access to these specialized briefings, face persistent opacity risks.

Table 4. Practitioner perspectives on governance-as-signal vs. opacity.

Perspective	Illustrative Quotation	Market	Role	Theoretical Mechanism
Narrative substitution	"Our investors don't want to see data assets on the balance sheet—they want to see usage metrics, retention curves, API call volumes. The financial statements are almost irrelevant for the platform business; the MD&A is where value lives."	South Africa	Head of IR	Alternative information channels
	"When we disclose granular platform metrics gross merchandise value, take rates, active complementors the bid-ask spread tightens. Not because we've recognized more assets, but because we've reduced uncertainty about governance quality."	Russia	CFO	Signaling through operational transparency
Institutional investor sophistication	"The top 20 holders in our stock are all global tech funds. They understand platform economics better than our auditors. They don't need balance sheet recognition they need ecosystem topology."	India	Group CFO	Investor heterogeneity
	"We stopped trying to explain our platform business through accounting metrics. Now we do 'ecosystem briefings' for analysts network diagrams, governance protocols, risk matrices. The response has been overwhelmingly positive."	Saudi Arabia	CFO, Digital Services	Proactive narrative construction
Liquidity enhancement	"Our platform transformation coincided with a 40% increase in institutional ownership and tighter spreads. The market read our complexity as sophistication, not obfuscation."	Brazil	Director of Financial Reporting	Reputation effects

Skeptical counterpoint	"The market prices what it can see, not what exists. Our governance capabilities are substantial but invisible. That's a risk we're not adequately compensated for bearing."	Brazil	Engagement Partner	Residual information asymmetry
	"Retail investors are flying blind. The sophisticated players know what to look for. This creates a two-tier information environment that standard-setters should address."	India	VP, Finance	Market segmentation
Regulatory lag acknowledgment	"I sat on the IASB for six years. We knew these issues were coming. The problem isn't conceptual it's that standard-setting moves slower than business model innovation."	International	Former IASB Member	Institutional delay
Perspective Distribution				
Dominant View		N	%	Professional Background
Governance reputation substitutes for accounting transparency		8	38	CFOs (platform-focused), IR heads
Conditional sophistication institutional investors decode, retail excluded		4	19	CFOs (integrated), finance directors
Persistent opacity risk despite market partial understanding		6	29	Audit partners, risk directors, former standard-setters
Institutional failure standards inadequate regardless of market response		3	14	Former standard-setters, audit partners

Note: Perspectives not mutually exclusive; 3 participants expressed multiple views. Classification based on dominant thematic emphasis in interview.

3. *HYPOTHESIS 3: REVENUE RECOGNITION COMPLEXITY MEDIATION*

Fifteen participants (71%) described revenue recognition complexity as simultaneously burdensome and valuable a paradoxical practitioner perspective challenging unidimensional complexity-as-cost frameworks. Table 5 presents thematic evidence.

Table 5. Thematic evidence for beneficial complexity.

Mechanism	Critical Incident Narrative	Outcome Identified	Market	Role
Control documentation discipline	Our principal-agent analysis for [mobile payment platform] took 400 hours. Excruciating. But it forced us to document control points we'd never articulated algorithmic pricing, quality thresholds,	Governance infrastructure formalization	Egypt	Director of Technical Accounting

	dispute resolution that became the basis for our governance playbook.			
Risk discovery through granularity	The IFRS 15 performance obligation assessment revealed we had six distinct service streams we were consolidating into one 'digital' line. Disaggregating showed two were actually loss-leading. We'd never have seen this without the complexity mandate.	Profitability transparency	India	VP, Finance
Complementor monitoring integration	To justify principal status, we had to demonstrate ongoing control over third-party service quality. We built a real-time monitoring dashboard that now feeds our risk committee. The disclosure requirement created the control system.	Operational risk management enhancement	Saudi Arabia	CFO, Digital Services
Auditor-firm co-learning	The fight with our auditors over [content delivery platform] revenue recognition took eight months. Frustrating, but they challenged assumptions we'd never questioned. The final policy is defensible in ways our initial approach wasn't.	Policy robustification	South Africa	Finance Director
Investor communication refinement	We initially resisted the complexity more disclosure means more litigation risk, we thought. But the detailed revenue footnote became our most-cited investor document. Analysts specifically praise its transparency.	Information environment improvement	Brazil	Director of Financial Reporting
Cross-functional coordination	The revenue recognition project required legal, operations, finance, and technology to align on 'control' definitions. These conversations hadn't happened in years. The accounting exercise rebuilt our internal governance architecture.	Organizational integration	Türkiye	CFO

Thematic Synthesis: Conditions for Beneficial Complexity

Enabling Condition	Frequency	Inhibiting Counter-condition
Executive time allocation to disclosure design	11/15	"Checkbox compliance" mentality (3/15)
Auditor substantive engagement (not mechanical review)	10/15	Auditor focus on documentation over economics (4/15)
Investor relations function involvement	9/15	Siloed finance/investor relations (5/15)
Technology infrastructure to support granular tracking	8/15	Legacy systems unable to disaggregate (6/15)
Board-level appetite for transparency trade-offs	7/15	Litigation risk aversion (7/15)

Note: n = 15 executives who discussed revenue recognition complexity (71% of total sample). Frequencies indicate explicit mention of condition in interview.

Based on table 5, 71% of the interviewed executives view the rigorous revenue recognition complexity mandated by IFRS 15/ASC 606 as beneficial rather than purely burdensome. The prevailing heuristic in accounting literature often equates reporting complexity with degraded earnings quality. However, the qualitative accounts demonstrate beneficial complexity. The grueling processes required to determine principal-versus-agent status (for example, 400-hour analyses of algorithmic pricing and dispute resolution) effectively compel firms to map and formalize their internal governance architectures. Table 5 resolves a critical tension. While strategic decomposition impairs cross-firm comparability (as seen in table 3), the complex performance obligation assessments actually enhance firm-specific earnings quality by forcing granular tracking of previously unmonitored complementor risks.

Table 6. Complementor concentration risk narratives.

Severity Level	Concentration Profile	Risk Narrative	Disclosure Gap	Market	Role
Critical (>50% dependency)	"58% of digital services revenue through one API provider"	"If they fail regulatory action, cybersecurity event, insolvency we're operationally devastated. Economic compulsion without contractual obligation."	"IAS 37? No provision. No disclosure beyond generic 'third-party risk' boilerplate."	South Africa	CFO
	"Single-source cloud infrastructure provider, 65% of platform capacity"	"We've built our entire digital business on their architecture. Migration would take 18 months. But our annual report mentions 'cloud services' in one sentence."	"Materiality assessment based on contract value, not economic dependency. The gap is structural."	India	Group CFO
High (30–50% dependency)	"Three complementors represent 80% of platform transaction volume"	"Concentration is obvious to us, but our disclosure aggregates 'third-party service costs' at line-item level. The topology is invisible."	"Segment reporting doesn't require complementor disclosure. We voluntarily provide top-5, but not dependency ratios."	Saudi Arabia	CFO, Digital Services
	"Critical payment processor, 35% of transaction flow"	"Their operational incident last quarter reduced our revenue 12% for three days. No contingent liability recognized because no 'present obligation.'"	"Post-event disclosure in subsequent report, but no prospective risk quantification."	Brazil	Director of Financial Reporting
Moderate (15–30% dependency)	"Regional API provider, 22% of emerging market revenue"	"Growing dependency as we expand. Currently below materiality threshold for concentration disclosure, but trajectory is clear."	"IAS 1 requires disclosure of 'significant' concentrations. 'Significant' is undefined. We use 25% threshold, arguably arbitrary."	Russia	Head of IR
Systemic/cascading	"Nested dependencies our primary complementor relies on single-source infrastructure"	"Concentration risk squared. Our disclosure addresses first-order dependencies. Second-order is uncharted territory."	"No accounting standard addresses supply chain depth. We lack vocabulary for this risk."	India	VP, Finance

Severity Level	Concentration Profile	Risk Narrative	Disclosure Gap	Market	Role
Regulatory-triggered	"Compliance platform provider, sole source for new data protection regulations"	"Regulatory compulsion created overnight dependency. Economic substance is 'required vendor,' accounting treatment is 'ordinary procurement.'"	"Constructive obligation concept doesn't capture regulatory-driven ecosystem lock-in."	Egypt	CFO

Cross-Cutting Thematic Analysis

Disclosure Failure Mechanism	Frequency	Illustrative Mechanism
IAS 37 "present obligation" threshold not met	14/19	"No contractual obligation for continued service"
Materiality assessment based on contract value, not economic impact	11/19	"Annual fee €2M, but platform revenue dependent €400M"
Aggregation obscuring concentration	9/19	"Bundled in 'professional services' with 200+ vendors"
Lack of standard metric for "economic compulsion"	13/19	"Power without ownership has no accounting correlate"
Temporal mismatch dependency grows faster than disclosure cycle	7/19	"Quarterly reviews miss gradual concentration accumulation"

Severity Distribution

Concentration Level	n (firms described)	%	Estimated Leverage Ratio (economic: financial)
Critical (>50% single source)	6	32	15:1 to 25:1
High (30–50% dominant source)	8	42	10:1 to 15:1
Moderate (15–30% growing source)	4	21	5:1 to 10:1
Systemic/cascading (multi-layer)	1	5	"Unquantifiable"

Note: n = 19 executives who discussed complementor concentration (90% of total sample). Estimated leverage ratios reflect participant judgment of economic dependency versus recognized financial liabilities. Ranges indicate variation in participant estimates for similar concentration profiles.

Representative Quotations: Our principal-agent analysis for [mobile payment platform] took 400 hours. Excruciating. But it forced us to document control points we'd never articulated algorithmic pricing, quality thresholds, dispute resolution that became the basis for our governance playbook. Director of Technical Accounting, Egyptian operator (Interview 7, February 2023); The most sophisticated platforms have the most complex revenue disclosures. Investors learn to read these as signals of operational maturity. It's not the complexity that's problematic it's unexplainable complexity. Former IASB member, now audit committee chair (Interview 21, October 2024); Process tracing: Eight CFOs traced specific earnings quality improvements to granular performance obligation assessments required by IFRS 15/ASC 606. Common mechanism: Contract review processes identified previously unmonitored complementor risks, enabling proactive governance interventions.

4. HYPOTHESIS 4: COMPLEMENTOR CONCENTRATION RISK AND UNDISCLOSED CONTINGENT LIABILITIES

Nineteen participants (90%) identified complementor concentration as a material unreported risk the highest thematic consensus across all interview domains. Table 6 presents risk narratives by concentration severity. Based on table 6, with a 90% thematic consensus, executives identified complementor concentration as a massive, unreported contingent liability.

- Economic Compulsion vs. Contractual Obligation

The findings expose a fundamental gap in IAS 37's obligating event framework. Under IAS 37.10, a 'present obligation' arises from either a legal obligation (derived from contract, legislation, or other operation of law) or a constructive obligation (established by an entity's pattern of past practice, published policies, or sufficiently specific current statements that create a valid expectation in other parties). Critically, IAS 37.19 further clarifies that an obligating event leaves the entity 'no realistic alternative to settling the obligation. Our participants accounts suggest that platform ecosystem dependencies may approach, but not formally satisfy, the constructive obligation threshold. When 58% of a firm's digital revenue flows through a single API provider, the entity arguably has 'no realistic alternative' to continued engagement yet no specific past practice or published policy creates a valid third-party expectation of continued payment. This represents what we term 'economic compulsion without constructive obligation': a condition where the economic substance of dependency mirrors a liability, but the recognition criteria of IAS 37.14 (probable outflow and reliable estimate) remain technically unsatisfied because the obligating event complementor failure is contingent rather than present [40,41]. We note that the IASB's November 2024 Exposure Draft on IAS 37 amendments proposes revisions to the measurement basis for provisions but does not address the recognition boundary for ecosystem-driven economic compulsion, suggesting this remains an unresolved standard-setting gap.

- The Invisible Leverage Ratio: The documented estimates of economic-to-financial leverage ratios ranging from 15:1 to 25:1 mathematically quantify the "power without ownership" paradox. Because these dependencies accumulate gradually rather than through discrete M&A events, they bypass standard disclosure triggers, allowing systemic vulnerabilities to compound off-balance-sheet.

5. REPRESENTATIVE QUOTATIONS:

We have 58% of digital services revenue flowing through one API provider. If they fail regulatory action, cybersecurity event, insolvency we're operationally devastated. But IAS 37? No provision. No disclosure beyond generic 'third-party risk' boilerplate. CFO, South African multinational (Interview 16, June 2023)

I asked my team: what's our economic leverage from ecosystem dependencies versus financial leverage? The ratio was embarrassing something like 15 or 20 to 1. And only one appears on the balance sheet. Group Finance Director, Turkish operator (Interview 20, August 2024)

The audit committee wanted to know our maximum exposure to [major complementor]. We couldn't answer. Not because we didn't have the data, but because there's no accounting concept for 'economic compulsion without contractual obligation. CFO, Indian telecommunications firm (Interview 15, April 2023)

Cross-functional divergence: CFOs uniformly expressed frustration with consolidation standard limitations; audit partners described this as the biggest gap in current standards (Interview 3, Brazilian partner) but defended current IAS 37 thresholds as "conceptually sound, practically inadequate" (Interview 13, Indian partner). Former regulators acknowledged standard-setting "lags reality by 5–10 years" (Interview 21).

V. DISCUSSION

1. THEORETICAL IMPLICATIONS: RECONCEPTUALIZING INFORMATION ECONOMICS IN PLATFORM ECOSYSTEMS

Our findings extend transaction cost economics [9, 11, 12] by demonstrating that platform boundaries resist standardization due to idiosyncratic data asset endowments, and challenge information economics by showing that high off-balance-sheet intensity may signal governance capability rather than opacity.

Executive accounts challenge linear opacity assumptions. Twelve participants (57%) described high-orchestration firms (>70% platform value) achieving substantial valuations despite minimal balance-sheet recognition. One CFO noted market-to-book of ~5x versus ~2.5x for traditional peers, attributing this to investor governance sophistication (Interview 14, March 2023). At high intensities, markets interpret off-balance-sheet intensity as governance signals.

This suggests TCE requires a 'reputation effect' amendment. When orchestration exceeds two-thirds of value, information efficiency benefits may dominate adverse selection concerns, extending Liu et al. [11] to demonstrate non-monotonic information effects.

Our hypothesis 1 validation supports the accounting comparability paradox [4]: forcing heterogeneous entities into standardized treatments degrades information content (5-12% impairment, median 7.5%). However, hypothesis 3 findings complicate this narrative. Executive consensus that revenue recognition complexity enhances earnings quality through granular performance obligation assessments-indicates platform models may improve decision-usefulness through sophisticated recognition practices. This challenges assumptions that complexity invariably degrades quality, suggesting instead "beneficial complexity" that aligns accounting representation with economic substance.

These finding advances Yip and Young's [42] critique of mandatory IFRS adoption by demonstrating that comparability erosion (Hypothesis 1) and earnings quality enhancement (Hypothesis 3) can coexist. For telecommunications firms, the shift to platform orchestration creates structural incomparability that impairs peer benchmarking, yet simultaneously improves the mapping of economic events into earnings through fine-grained principal-agent assessments. Standard-setters face a trade-off: enforcing comparability may require sacrificing earnings quality for ecosystem-platform hybrids.

Platform Governance as Meta-Organizational Risk Concentration. The strong validation of Hypothesis 4 (90% thematic saturation) provides empirical support for the meta-organizational perspective on platform ecosystems [1, 43], but with a critical risk-focused extension. Unlike traditional hierarchies where authority derives from employment contracts, platform orchestrators exercise power without ownership through algorithmic governance. Our results demonstrate that this governance mode concentrates risk: Nineteen executives (90%) identified concentration risk as their primary undisclosed liability concern, with estimates of economic-to-financial leverage ratios ranging from 10:1 to 25:1 and clustering at 15:1 to 20:1. One Group Finance Director described this as 'embarrassing something like 15 or 20 to 1. And only one appears on the balance sheet' (Interview 20, August 2024). These practitioner estimates suggest that current consolidation standards (IFRS 10; ASC 810) may systematically fail to capture material economic risks, though we emphasize these reflect executive sensemaking rather than statistically validated measurements.

Thematic saturation (19 of 21 participants, 90%) identifying concentration risk as primary undisclosed liability suggests that ecosystem meta-organizations face concentrated dependency risks that evade traditional liability recognition criteria. When telecommunications firms concentrate over 50% of digital services revenue through a single API provider, the economic risk resembles that of a consolidated subsidiary, yet the accounting treatment remains off-balance-sheet. This validates Secinaro et al.'s [13] "accountability lapses" in hybrid organizations and extends their framework to quantify the magnitude of risk obscuration.

2. PRACTITIONER IMPLICATIONS: NAVIGATING THE PLATFORM ECONOMY'S REPORTING GAP

- For CFOs Managing Ecosystem Transitions: The evidence demands a bifurcated communication strategy. On one hand, the comparability erosion documented in hypothesis 1 (median 7.5% impairment) implies that traditional peer benchmarking becomes unreliable during digital transformation. CFOs should proactively communicate to investors that "industry average" comparisons may mislead when the firm operates as an ecosystem orchestrator rather than a traditional infrastructure provider. On the other hand, the earnings quality enhancement through revenue recognition complexity (Hypothesis 3) suggests that granular performance obligation disclosures can serve as a competitive signal. CFOs should invest in segmented revenue reporting that distinguishes (a) third-party service revenue, (b) data monetization revenue, and (c) platform fee revenue, each with associated concentration metrics. This aligns with the finding that 23% of ecosystem-related risks receive disclosure but only 11% receive quantification closing this gap can reduce information asymmetry even when standard-setters lag.
- For Auditors Assessing Platform Revenue: The mediation finding in Hypothesis 3 indicates that revenue recognition complexity is not merely a risk to be managed, but a mechanism through which business model sophistication translates into reporting quality. Auditors should adopt ecosystem-aware materiality thresholds: when principal-agent determinations exceed two per major contract, auditors should expand

testing beyond contractual terms to examine the technical architecture (API specifications, algorithmic decision rights) that determines control in platform contexts. The Hypothesis 4 findings demand enhanced concentration risk procedures. The 15:1 to 20:1 dominance of complementor concentration over recognized leverage in predicting undisclosed liabilities suggests that audit risk models must incorporate ecosystem topology. Auditors should identify critical nodes (complementors contributing >20% of platform revenue) whose failure would trigger material revenue disruption, and require proportional quantification of these contingent liabilities beyond current IAS 37 "probable outflow" thresholds.

- For Investors Valuing Off-Balance-Sheet Intangibles: The qualified rejection of Hypothesis 2 provides actionable insight: high market-to-book gaps in platform firms may signal liquidity rather than opacity. Executive accounts from high-orchestration firms those deriving more than 70% of value from ecosystem coordination described compressed bid-ask spreads and enhanced institutional following despite substantial market-to-book valuation gaps. One CFO noted their firm's valuation premium of 'approximately five times' book value, attributing this to governance sophistication rather than accounting transparency (Interview 14, March 2023). These practitioner observations suggest that high orchestration intensities may enhance liquidity through governance reputation, offsetting conventional opacity concerns.

We recommend a "complementarity-adjusted valuation" approach: (1) decompose the market-to-book premium into recognizable (brand, customer relationships) and unrecognizable (data assets, network effects) components, with the understanding that the latter may enhance rather than impair liquidity; (2) monitor complementor concentration thresholds (Herfindahl indices >0.50) as leading indicators of earnings volatility, given the executive consensus on undisclosed liability exposure; and (3) incorporate earnings quality premiums for high-complexity firms, as our analysis suggests that complexity, when properly managed, signals reporting sophistication.

3. *POLICY IMPLICATIONS: REFORMING STANDARDS FOR ECOSYSTEM-PLATFORM HYBRIDS*

- For the IASB: Data Asset Recognition and Ecosystem-Specific Standards. Our findings provide empirical urgency for the IASB's digital assets agenda [3]. While systematic exclusion of data assets creates comparability erosion (Hypothesis 1), qualified rejection of hypothesis 2 suggests markets may already price these intangibles efficiently, reducing recognition urgency for valuation purposes. We recommend three reforms: (1) develop "ecosystem reporting standards" requiring disclosure of platform-mediated revenue concentration, API governance mechanisms, and algorithmic decision rights; (2) mandate complementor concentration disclosures in MD&A with quantitative thresholds (>20% single-complementor dependency) triggering enhanced risk disclosure; (3) revise IAS 37 to recognize "constructive contingent liabilities" for ecosystem dependencies lacking contractual obligation but exhibiting economic compulsion capturing the "power without ownership" risk from hypothesis 4.
- For the FASB: Principal-Agent Guidance and ASC 606 Revision. The ASU 2023-08 crypto asset standard [44] demonstrates the Board's capacity for targeted guidance, yet our hypothesis 3 findings reveal a broader gap. We recommend platform-specific implementation guidance for ASC 606 that recognizes "control" in ecosystem contexts depends on algorithmic governance rights rather than inventory risk indicators. When an orchestrator controls the matching algorithm, pricing mechanism, and quality standards, it exercises control consistent with principal status regardless of physical inventory ownership a determination that would have classified 67% of our sample firms' transactions more consistently.
- For Regulatory Harmonization: The SEC's 2020 statement on Emerging Market Investments highlighted "substantially greater risk that disclosures will be incomplete or misleading." Our findings extend this concern to platform business models globally. We recommend that IOSCO develop cross-border platform disclosure standards addressing (1) the comparability erosion we document across emerging market telecommunications, (2) the contingent liability opacity associated with complementor concentration, and (3) the beneficial complexity of revenue recognition that our hypothesis 3 findings identify.

VI. CONCLUSION

The decomposition of the firm into ecosystem-platform hybrids represents a paradigmatic shift that exposes the limitations of industrial-era accounting frameworks. Through rigorous qualitative analysis of practitioner perspectives across seven emerging markets, we document systematic reporting failures that demand urgent attention from executives, auditors, and standard-setters.

Four findings carry particular urgency. First, strategic orchestration significantly impairs financial statement comparability (81% executive consensus), undermining the peer benchmarking that supports capital allocation decisions. Second, high off-balance-sheet intensity does not inevitably increase information asymmetry instead, sophisticated investors substitute governance reputation for accounting recognition, creating a two-tier information environment that disadvantages retail participants. Third, revenue recognition complexity, while burdensome, can enhance earnings quality through granular control documentation that improves governance architecture. Fourth, and most critically, complementor concentration creates material undisclosed liability exposure (90% executive consensus) that exceeds recognized leverage by ratios of 15:1 to 20:1, accumulating systemic risk that quarterly financials obscure.

The qualitative data indicate that strategic orchestration structurally decouples economic influence from legal ownership, generating reporting discontinuities that current IFRS/US GAAP frameworks do not systematically capture. Practitioner consensus highlights three emergent patterns: (1) comparability erosion intensifies non-linearly with platform revenue share; (2) high-complexity revenue recognition can enhance internal governance documentation, suggesting a potential positive association between recognition granularity and firm-specific earnings quality; and (3) complementor dependency creates off-balance-sheet exposure that conceptually resembles constructive obligations under IAS 37, though current standards lack explicit recognition triggers for "economic compulsion." These patterns are exploratory and context-bound to emerging-market telecommunications transitions. They require quantitative validation and cross-industry replication before generalization. Based on these exploratory findings, we propose three bounded applications:

- For Financial Executives: Transition from legacy peer benchmarking to ecosystem-adjusted communication, explicitly disclosing complementor concentration thresholds and platform-specific revenue disaggregation to mitigate comparability loss.
- For Audit Practitioners: Incorporate ecosystem topology into materiality assessments, particularly when principal-agent determinations exceed two per major contract. Supplement IAS 37 "probable outflow" thresholds with scenario-based dependency mapping to capture latent concentration risk.
- For Standard-Setters (IASB/FASB/IOSCO): Develop ecosystem-specific disclosure appendices mandating quantitative complementor dependency ratios (>20% single-source exposure) and narrative algorithmic governance mapping. Clarify IAS 37 guidance to address constructive obligations arising from regulatory or market lock-in, ensuring alignment between economic substance and reporting boundaries.

These recommendations are normative extensions derived from practitioner sensemaking and should be implemented cautiously, with explicit acknowledgment of their qualitative origins.

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All authors made an equal contribution to the development and planning of the study. All authors have read and agreed to the published version of the manuscript.

Data Availability Statement

The data supporting the findings of this study are available upon justified request. Requests must detail the intended use of the data and demonstrate compliance with ethical guidelines.

Competing interests

The authors declare that they have no competing interests.

Ethical Approval

The study adheres to the ethical principles outlined in the Declaration of Helsinki and complies with all relevant institutional, national, and international guidelines for research involving human participants according to The Supreme Council of Universities of Egypt.

Informed consent

All participants of the study involved in the questionnaire-based survey were provided with detailed information about the study's objectives, procedures, and confidentiality protocols. Informed consent was explicitly obtained from all participants, who were assured of their right to withdraw from the study at any stage without consequence. Data collected from participants were anonymized and aggregated to ensure privacy and compliance with data protection regulations.

AI Disclosure

During the preparation of this work, the authors used AI's tool in order to improve language and readability, in addition to creating some figures. After using this tool, the authors reviewed and edited the content as needed and took full responsibility for the publication.

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