AN EMPIRICAL ANALYSIS OF INTERNAL CONTROL GOVERNANCE IN ACCOUNTING INFORMATION SYSTEMS: USERS' DILEMMAS, STRATEGIC TRADE-OFFS AND OPERATIONAL PRACTICES

Suziel Nchamaobari Obarieeh Epollo[1], Noraizah Abu Bakar [2*], Nor Hafizah Abd Mansor [3]

[1] Universiti Teknologi MARA Cawangan Segamat, Johor, Faculty of Accountancy
suziel.neo@gmail.com   https://orcid.org/0009-0008-4275-8772

[2] Universiti Teknologi MARA Cawangan Segamat, Johor, Faculty of Accountancy
norai738@uitm.edu.my   https://orcid.org/0009-0006-3817-4833

[3] Universiti Teknologi MARA Cawangan Segamat, Johor, Faculty of Accountancy
norha058@uitm.edu.my   https://orcid.org/0009-0004-2736-926X

*Corresponding Author

Article Info:

Abstract:

The Accounting Information System (AIS) is designed to collect, record, store and process financial transactions and data, converting them into meaningful information to support business planning and operational control. The increasing reliance on AIS has strengthened concerns regarding the effectiveness of controls and the ethical behaviour of system users. Internal Control governance (ICG) is the mechanisms through which AIS controls are design that can influence on users' operational processes and ethical decision-making. Thus, this study explores the dilemmas faced by AIS users within the scope of Control Governance and seeks to understand how organizations can alleviate stringent governance requirements without compromising system integrity. A qualitative research approach was employed, involving primary data collection from a multinational company operating in Malaysia with overseas headquarters. Informants were selected from key departments, namely Finance, Human Resources (HR)and Information Technology (IT). Using thematic analysis, the study uncovered that AIS users often face challenges in executing their routine responsibilities under the constraints imposed by ICG frameworks. The findings highlight several ethical and procedural dilemmas that influence AIS user performance, particularly in areas such as regulatory awareness, compliance obligations and procedures, organizational culture, reporting standards and overall productivity and efficiency.

Introduction

AIS as essential tools in modern organizations, underpinning financial operations and serving as the backbone for reporting, internal controls and compliance with regulatory requirements (Gordon, 2022). AIS are no longer merely technical tools for recording transactions but central platforms through which governance, risk management and operational control are tied to organizational performance (Ali & Noor, 2022). Integrating internal control governance (ICG) into AIS mitigates risk and ensures financial data is processed reliably under organizational policies.

ICG typically incorporates rules, procedures and authorization mechanisms implemented through controlled frameworks across departments. In multinational organizations, these frameworks are centralized to standardize processes and maintain oversight. (Hassan & Omar, 2023). Features such as hierarchical approvals, segregation of duties, authentication, audit trails and access controls enforce compliance.

While technical aspects of ICG are well documented, limited research addresses human and behavioural dimensions of governance and the trade-offs in operational practice (O'Donnell et al., 2023; Singh & Wright, 2022). Employees often face dilemmas when navigating rigid policies and complex system configurations. Strict compliance requirements and hierarchical approvals can slow transactions, limiting flexibility and autonomy (Nguyen & Lee, 2024). Thus, ICG should be understood as a dynamic, human interaction shaped by user engagement and decision-making (Nguyen & Lee, 2024).

Most research on AIS governance has focused on technical performance, system capabilities and internal controls, leaving user experiences underexplored. Few studies examine how governance affects employee behaviour, judgment and decision-making (Kaufmann & Miller, 2023; O'Donnell et al., 2023; Nguyen & Lee, 2024).

This study addresses the gap by investigating AIS users' experiences in a multinational organization with centralized ICG. It explores how managers, executives and staff interpret governance constraints in daily tasks.

Behavioural Aspect

This aspect examines user dilemmas and trade-offs in AIS usage. The key findings of this research demonstrate the practical ways of how employees could manage the trade-offs that exist between autonomy, accountability and efficiency.

Practical Aspect

By identifying AIS users' practical behavioural realities, organizations can structure governance mechanisms in a way that are robust and user-friendly. Thus, this will support compliance requirements. This arrangement will promote management initiatives while ensuring that AIS not only complies with rules.

Theoretical Aspect

By examining the connection between governance policies, technological functionalities and user behaviour, it advances the conceptualization of ICG as a context-dependent control mechanism with socially embedded practices.

The study seeks to understand the complexities of ICG in computerized accounting environments by focusing on practical AIS user experiences in multinational organizations. It explores how employees navigate governance constraints, interpret system rules and balance competing demands in daily tasks.

Literature Review

Internal Control Governance in Digital Accounting Environments

An AIS plays a vital role in supporting decision-making by providing accurate, complete, timely and secure financial information (Romney et al., 2024). As information security threats grow alongside rapid technological advancements, AIS has become increasingly central to effective business operations (Chen & Lee, 2022). Integrating AIS with IT systems enhances internal processes, product quality and employee competencies, thereby fostering corporate resilience. According to Bandler (2024), these rules direct internal behaviour and ensure compliance with external regulations. Controls encompass responsibilities like segregation of duties, asset protection, performance evaluation, approvals and reconciliations. Accounting control aims to mitigate risks and ensure accurate financial reporting (Li et al., 2023). Risk assessment identifies threats such as cash theft, prompting control measures like limiting cash drawer operation to one employee per shift (Gordon, 2022). AIS internal controls must also restrict system access to authorized users to prevent unauthorized file access (Dunkelberger, 2022).

ICG in AIS establishes a framework that secures transactions for accuracy, integrity and transparency in financial reporting (Gordon, 2022). With increasing adoption of computerized technologies, ICG has become central to AIS deployment, aligning governance policies with system functionality (Hassan & Omar, 2023). Integration of these mechanisms empowers organizations to mitigate risks, adhere to regulations and sustain standardized reporting across complex subsidiaries (Lopez & Garcia, 2021). As a governance structure, ICG promotes regulatory processes, ensuring consistency and accountability (Agbejule & Nikitina, 2022).

Centralization facilitates uniform application of rules, distinguishing approval hierarchies, segregating duties and granting access controls (Romney et al., 2021). These controls safeguard systems against errors, fraud and noncompliance (Nguyen & Lee, 2024). Transparency is reinforced through audit trails and activity logs, enabling monitoring and corrective measures. Despite oversight benefits, unified ICG frameworks create operational challenges (Kaufmann & Miller, 2023; Nguyen & Lee, 2024). Strict rules often require multiple approvals, slowing workflows and restricting flexibility during urgent demands. Employees face conflicts between governance protocols and human judgment needed for efficiency.

Recent studies emphasize viewing ICG not only as a structural system but also through practical human experience. Governance is a dynamic process shaped by how employees interpret and respond to system limitations (O'Donnell et al., 2023). In multinational organizations with centralized control, diverse local contexts make behavioural dimensions particularly significant.

AIS as a Governance Mechanism and Work System

AIS operate simultaneously as technological infrastructures and socio-organizational systems. Technologically, they record transactions, store structured data and automate financial reporting. Organizationally, AIS shape operational patterns, influencing decision-making and collaboration across units. Built-in mechanisms such as access controls, hierarchical workflows, authorization rules and audit logs serve as governance tools to uphold compliance, maintain transparency and monitor financial activities.

The design and application of AIS significantly define governance roles and how policies are implemented. Centralized AIS architecture promotes uniformity of control across departments, standardizing processes and reducing errors. However, this standardization may limit local flexibility, reduce employee autonomy and increase tensions when tasks demand decisions.
AIS functions both as governance mechanisms and operational platforms, inevitably generating tensions for users. Employees often struggle between moral judgment and compliance requirements in daily tasks. Organizations demand both efficiency and adherence to governance, creating trade-offs.

Thus, governance in AIS should be conceptualized as a socio-technical system that integrates technology, policy and human behaviour. Effective governance is not solely the product of system architecture but emerges from human interpretation and real-time practices. Recognizing this dynamic interplay highlights the need for governance frameworks that balance control with flexibility, ensuring compliance while enabling operational efficiency (Singh & Wright, 2022).

AIS Users' Dilemmas and Behavioural Perspectives

Behavioural aspect of this research establishes that AIS users often encounter choices emanating from rigorous and conflicting requirement interconnected with policy, process compliance, flexibility and operational efficiency. Users must balance the role of detailed governance procedures alongside practical expectation to complete tasks within a required operational timeline. These dilemmas often create tensions between organizational rules and workflow efficiency, thereby prompting employees to develop alternate strategies to navigate these constraints without violating governance principles.

Practically, this study indicates that users respond to these operational pressures through adaptive behaviours such as seeking parallel approvals, creating temporary workarounds, direct communication with colleagues, or re-sequencing tasks to maintain workflow. While these strategies improve operational efficiency, they might introduce governance risks. Understanding behavioural responses is essential. What emerges is not a rigid one-sided process rather a dynamic negotiation of human judgment and the interpretive nature of governance for decision-making (Nguyen & Lee, 2024; O'Donnell et al., 2023). Compliance isn't a static state imposed by technology or policy, but an ongoing process that evolves through human interactions between systems and rules.

Trade-Off Theory and AIS Governance

To examine AIS governance with emphasis on balancing competing objectives, Trade-off theory becomes imperative for providing insight into the strategic trade-off (Zhou & Lee, 2024). Users are often confronted with trade-offs between numerous factors such as accountability and efficiency, accuracy and workload, autonomy and transparency or compliance and timeliness. These trade-offs emerge in areas where formal governance structures do not fully align with operational realities faced by employees.

Within AIS, trade-off theory describes how users meditate governance (Singh & Wright, 2022). Decisions, adaptations and interpretive strategies of users influence both the effectiveness of ICG and the performance of the system. Understanding these trade-offs is essential for designing governance structure that incorporates compliance while accommodating operational needs. Trade-off theory underlines that flexibility, context sensitivity and user cantered design in AIS governance are important

Research Gap

Research on AIS governance has often focused on the technical, structural and policy dimensions. There is limited consideration given to the behavioural and users interpretive experiences particularly in multi-subsidiary multinational organizations. There are inadequate studies that explore how employees experience governance constraints, navigate system limitations and balance demands. Behavioural dilemmas such as delaying approvals to maintain workflow, selectively interpreting procedures, or prioritizing urgent tasks over formal compliance illustrate operational trade-offs prevalent in AIS governance. By connecting user dilemmas to trade-off theory, this study establishes a theoretical foundation for examining governance as a dynamic concession between structural controls and human interaction.
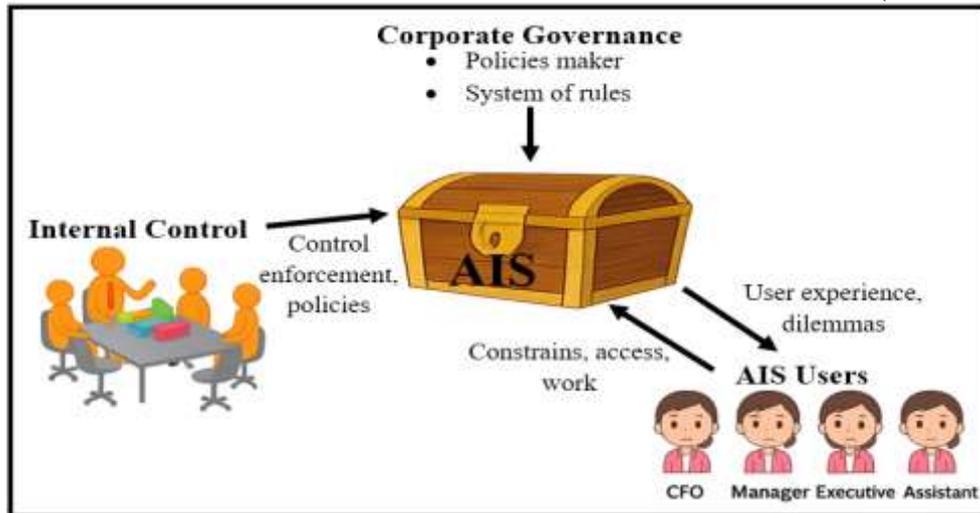
 Figure 1: Research Framework Linking CG, Internal Control and AIS User Experience
Source: Developed for the Current Study

Methodology

Research Design

This study deploys a qualitative multiple case study design for exploring how AIS users experience ICG in their daily work and how they navigate. The multiple case study approach affords the prospect of comparing experiences across different organizational units. By examining employees' standpoints and practices, study captures the dynamic, socially facilitated aspects of governance that are often overlooked in technical or structural analyses. The design enables the examination of both procedural and behavioural dimensions of AIS governance, highlighting how users interpret, reconcile or cope with governance constraints with operational demands.

Case Study Selection

Two entities within a multi-subsidiary multinational organization were selected for this study. Both entities utilize the same AIS platform and operate under centralized ICG, enabling for comparative analysis of user experiences within a shared technological and policy framework. The selection criteria included:

- Similar AIS configurations and financial process structures, ensuring comparability in system functionalities and governance procedures.
- Significant influence from centralized internal control governance, reflecting consistent application of rules, approval hierarchies and control mechanisms.
- Variation in operational complexity and workflow volume, enabling exploration of how governance pressures manifest in different work environments.

Table 1: Informant Demographics for Company A and Company B

Profile	Company A	Company B
Industry	Manufacturing Industry	Construction and Engineering related Industry
Product / Service	Manufacturing of Steel Pipes	Fire Prevention Equipment and Systems
Total Number of Employee	1 - 1,000	1 - 2,000
Informant's Level/ Position		
Chief Financial Officer	1	1
Finance Manager	1	1
Finance Executive Senior	2	2
Finance Executive Junior	2	2
Finance Assistant	4	4
IT personnel	2	2
HR personnel	2	2
Total	**14**	**14**
Years Of Experience		
< 5 years	0	0
6-10 years	6	5
> 10 years	8	9

Source: Developed for the Current Study

This purposive selection ensured that this study captured both consistency and dissimilarity in user experiences thereby highlighting how organizational context can intensify or stabilize the impact of governance mechanisms.

Table 2: Interview Modes by Organisation

Interview Characteristics	Company A	Company B
Method of Informants Identification	AIS users with ICG responsibilities	
Number of Informants	14	14
Interview Duration per Session	30–60 minutes	
Interview Period (Month/Year)	April 2023-Jan 2024	May 2023-Mar 2024
Mode / Platform Used	Face-to-face, Email, Phone, Google Meet, Skype, WhatsApp	
Interview Structure	Semi-structured, open-ended, conversational	

Source: Developed for the Current Study

Data Collection

Data were collected using three primary sources to enable researchers to achieve triangulation and enhance the credibility of the findings.

- **Semi structured interviews-** Participants included chief financial officers, managers, executives and financial assistants. Interviews focused on participants' responsibilities

related to AIS, their experiences with governance constraints and the dilemmas they encountered in completing operational tasks. Open-ended questions encouraged participants to elaborate on both challenges and adaptive strategies, providing rich insights into the practical realities of ICG in daily work.

- **On-site observations** - Observations were conducted during routine AIS activities, including transaction entry, approval processing and financial closing procedures. These observations allowed the researcher to document real-time user interactions with the system. Noting how employees navigate system limitations, respond to bottlenecks and coordinated work across hierarchical levels. Observational data complemented interview responses, offering direct viewpoint on workflow practices and adaptive behaviours.

- **Document analysis** - Relevant documents of organizational in study were reviewed to contextualize governance structures and procedures. These included internal policies, standard operating procedures, system manuals, internal audit reports and compliance guidelines. Document analysis provided an understanding of formal governance requirements, enabling the study to identify points where user practices deviated from prescribed rules. The combination of interviews, observations and document review provided a comprehensive understanding of how governance is enacted through AIS, capturing both the formal and informal dimensions of internal control practices.

Ethical Considerations

Ethical considerations were central to the research design. Informed consent was obtained from all participants, ensuring that they understood the study objectives, the voluntary nature of participation and the measures in place to protect confidentiality. Pseudonyms were used to anonymize individuals and organizational units, preventing the disclosure of sensitive financial or operational information. Data were securely stored and accessed only by the research team, in accordance with ethical research protocols. Observations and document analyses were conducted with the explicit permission of the organization ensuring transparency and trust.

Data Analysis

Data were analysed using thematic analysis (Braun & Clarke, 2006), which involves identifying, analysing and reporting patterns within qualitative data. The analysis followed four sequential stages:

i. *Initial coding* – Interview transcripts and observation notes were coded line by line to capture meaningful statements related to governance constraints, user challenges and system interactions. Codes reflected both explicit descriptions and interpretive insights into user experiences.

ii. *Development of meaning categories*- Codes were grouped into broader categories reflecting recurring concepts, such as procedural delays, workarounds, role limitations and access constraints. This step helped organize the data into manageable clusters for deeper analysis.

iii. *Formation of major themes*- Categories were synthesized into overarching themes representing central forms of dilemmas, trade-offs and adaptive practices experienced by AIS users. Themes were refined iteratively, ensuring that they accurately reflected patterns across participants and data sources.

iv. ***Cross-case comparison*** - Themes were compared across the two subsidiaries to identify commonalities and differences in governance influence, user adaptations and organizational responses. This cross-case analysis enhanced the explanatory power of the findings by highlighting how contextual factors shape user experiences. Throughout the analysis, triangulation across interviews, observations and documents strengthened the credibility and trustworthiness of the findings. Interpretive consistency was maintained through regular review of coding decisions and reflective notetaking, ensuring that the analysis accurately represented the perspectives and experiences of participants.

Trustworthiness and Consistency

To ensure the rigor of the qualitative study, multiple strategies were employed (Hennink & Bonnie, 2022). Triangulation of data sources verified findings across interviews, observations and documents. Peer debriefing and consultation with colleagues provided external validation of coding and theme development. Reflexive journaling was maintained to document analytical decisions and minimize researcher bias. The use of rich, contextualized descriptions allowed for transferability of findings, providing insights relevant to other organizations implementing centralized governance within AIS environments.

Findings and Discussion

Cross-Case Insights

Comparative analysis of the two-case study revealed both had shared experiences and contextual differences:

- **Case A** exhibited highly centralized control, rigid approval procedures and frequent delays in transactional processing. Employees reported lower autonomy, greater reliance on informal communication and higher stress levels due to procedural constraints.
- **Case B** demonstrated more adaptive practices, with employees negotiating minor procedural deviations and using flexible coordination strategies to manage workflow efficiently. Staff reported higher autonomy and a greater sense of ownership over tasks, while still adhering to governance principles.

Table 3: Cross-Case Studies Interpretation on Trade-Offs and Operational Practices

Theme	Company A	Company B	Merged Interpretation
Control Mechanism Design	Manual, loosely structured processes create timing ambiguity and inconsistent enforcement.	System-enforced workflows restrict flexibility; strict audit/reporting deadlines intensify pressure.	Tension originates from misalignment between ICG control design and operational work practices.
Workflow Rigidity vs Flexibility	Human-dependent approvals and undocumented	System routes fix the workflow order; users cannot skip or reorder steps.	Both manual and automated workflows become rigid when

	checkpoints delay processes.		not aligned with actual operational needs.
Process Visibility and Predictability	Low predictability is often unsure how long approvals will take.	Moderate predictability system timestamps provide visibility but little flexibility.	Predictability improves visibility but does not eliminate operational tension.
User Compliance Pressure	Users feel pressure to meet deadlines despite unclear workflows.	Users feel pressure due to immovable system deadlines.	In both companies, performance expectations conflict with control requirements.
Control–Performance Trade-off	Tension arises from procedural ambiguity.	Tension arises from system rigidity.	Tension persists across different levels of process maturity and control mechanisms.

Source: Developed for the Current Study

These cross-case insights suggest that organizational context, including operational complexity and managerial flexibility, moderates the impact of governance mechanisms on user experiences. While both subsidiaries operated under centralized control, variations in leadership practices, system configuration and workflow expectations influenced how employees responded to governance pressures.

Procedural Dilemmas

Procedural dilemmas emerged as a central theme, highlighting conflicts between compliance and operational efficiency. Participants described three primary types of procedural challenges:
  i.   **Delays caused by multi-level approvals** - Staff frequently experienced prolonged waiting times for necessary authorizations, which sometimes required repeated follow-ups and escalation through managerial channels.
  ii. **Conflicts between policy compliance and urgent operational needs** - Situations arose where strict adherence to governance rules could compromise the ability to meet financial deadlines, forcing employees to negotiate between formal policy and practical necessity.
  iii. **Restrictions related to system access and role limitations** - Access permissions and role-based restrictions limited employees' ability to perform certain tasks independently, requiring coordination and dependency on other personnel, which occasionally created bottlenecks.

These procedural dilemmas illustrate that governance frameworks, while essential for maintaining control, may inadvertently create inefficiencies when they do not align with the temporal and practical demands of organizational operations.

Behavioural Dilemmas

Behavioural dilemmas were observed as employees navigated the intersection of governance pressures and task completion. Three key behavioural patterns emerged:

i. **Risk-averse behaviour** - Employees tended to strictly adhere to governance protocols, even when doing so slowed their work, to avoid potential audit repercussions or disciplinary actions.
ii. **Over-reliance on informal communication** - To bypass procedural delays, staff frequently relied on direct communication with supervisors or peers to expedite approvals or clarify system requirements, reflecting a tacit adaptation to rigid governance structures.
iii. **Reluctance to request exceptions** - Fear of negative evaluation or audit scrutiny led employees to avoid formally requesting exceptions to standard procedures, even in situations where deviations could improve efficiency.

These behavioural responses demonstrate how governance pressures shape employee decision making and risk management strategies, reflecting a complex balance between compliance and operational performance.

Ethical Dilemmas

Ethical dilemmas surfaced when employees faced situations where strict compliance and operational demands conflicted. Participants described scenarios where temporary deviations from formal procedures were employed to meet urgent deadlines, creating tension between ethical obligations and practical considerations. Three key dimensions were identified:

i. **System constraints encouraged workaround practices** - Employees reported creating alternative processes to expedite tasks while maintaining the appearance of compliance.
ii. **Temporary deviations framed as necessary to meet deadlines** - Workarounds were often justified internally as short-term solutions necessary to sustain workflow continuity without compromising financial accuracy.
iii. **Misalignment between compliance and performance targets** - Staff encountered conflicting pressures from governance requirements and organizational performance expectations, necessitating discretionary judgment to reconcile competing objectives.

These ethical dilemmas highlight the need to consider moral reasoning and professional judgment as integral elements of AIS governance, demonstrating that compliance is not only a technical issue but also a behavioural and ethical challenge.

The Nature of AIS Users' Trade-Offs

Trade-off theory provides a valuable lens for understanding the dilemmas faced by AIS users. Participants regularly confronted competing objectives, including:
i. **Compliance versus timeliness** – Adhering strictly to governance protocols often conflicted with the need to meet financial deadlines.
ii. **Transparency versus autonomy** – Detailed reporting and monitoring requirements limited employees' freedom to make decisions independently.
iii. **Accuracy versus workload** – High standards for data integrity increased task complexity and processing time, creating pressure to balance quality and efficiency.
iv. **Accountability versus workflow efficiency** – Ensuring traceability and audit readiness sometimes slowed operational throughput.

These trade-offs demonstrate that governance structures alone do not determine outcomes. Rather, employees continuously mediate between structural requirements and operational realities, making decisions that shape the effectiveness of internal controls and system performance. Understanding these trade-offs is essential for designing governance frameworks that are both effective and user-sensitive, enabling employees to navigate operational demands without compromising compliance or ethical standards.

Summary

The study revealed that ICG was deeply embedded within the AIS through approval matrices, segregation of duties, audit logs and transaction visibility features (Lopez & Garcia, 2021; Gordon, 2022). Participants acknowledged the necessity of these mechanisms for ensuring accuracy and accountability. However, they also described the controls as restrictive and sometimes obstructive to completing routine tasks efficiently.

Employees reported that multiple layers of authorization and strict approval workflows slowed transaction processing, particularly during high-volume periods such as month-end financial closings. For instance, junior staff required approvals from multiple managers for standard journal entries, which often led to delays and interrupted workflow continuity. Participants emphasized that while these system-embedded controls were designed to prevent error and enforce compliance, they occasionally impeded timely decision making, illustrating the tension between formal governance intentions and operational realities. The study identified a complex interplay between system-embedded controls, organizational governance structures and human behaviour. Key insights include:

i. **Governance mechanisms are both enabling and constraining** - While they enhance accountability and transparency, they may also impede workflow efficiency.
ii. **Employees experience multiple types of dilemmas** - Procedural, behavioural and ethical dilemmas arise as users negotiate the demands of compliance and operational performance.
iii. **Adaptive strategies are essential for effective workflow** - Users actively interpret, negotiate and occasionally bypass rigid structures to maintain operational efficiency.
iv. **Contextual factors moderate governance impact** - Organizational culture, leadership flexibility and system configuration influence how governance pressures are experienced and managed.

Together, these findings reveal that AIS governance is not a static or purely technical construct but a dynamic system shaped by human judgment, interpretation and adaptation. They underscore the importance of designing governance frameworks that balance control with flexibility, ensuring that employees can meet operational objectives without compromising compliance, transparency, or ethical standards.

Conclusion

The primary finding of this study highlights the behavioural and ethical dilemmas relating to ICG in AIS. The findings show governance mechanisms within AIS is a top-down hierarchy procedure for all approval, access controls and audit trail (COSO, 2013; Dunkelberger, 2022; Gordon, 2022). Employees must actively navigate these constraints with adaptive strategies which highlight that compliance is co-produced rather than unilaterally imposed. Trade-offs

exist between compliance and efficiency, transparency and autonomy requiring negotiation to reconcile governance expectations with operational realities.

The theoretical contributions of this research include forming a new idea or different principle about ICG as a social and dynamic practice through integrating behavioural and interpretive element of AIS governance. Furthermore, by extending trade-off theory in an operational context, emphasizing that performance and efficiency can be achieved through governance outcomes conformity and human-system interactions. The practical contribution of this study is not limited to providing direction for organizations to integrate flexibility in designing governance frameworks. Another aspect is for proactively handling adaptive behaviours within daily operation, providing comprehensive training across board. A more dynamic monitoring mechanism can be then implemented to align performance metrics with governance objectives and organizational goals. Finally, this study distinguishes AIS as both a technological instrument of assessment and a pragmatic behavioural environment of any organization. This loop emphasis the complicated interplay between policy, system design and human intervention.

References

Agbejule, A., & Nikitina, E. (2022). Internal control mechanisms and organizational ethics: Evidence from accounting practices. Journal of Business Ethics, 178(3), 451–470.https://doi.org/10.1007/s10551-021-04975-3

Ahmad, S., Rahman, R., & Zainuddin, Z. (2021). Corporate governance practices and internal control effectiveness: Evidence from emerging economies. Corporate Governance: The International Journal of Business in Society, 21(5), 879–896. https://doi.org/10.1108/CG-01-2021-0034

Ahmad Zazili, N., Kamarulzaman, N. H., & Ramli, R. (2024). Balancing control and flexibility in accounting information systems governance. Journal of Information Systems and Control, 8(2), 101–118.

Ahmed, R., & Noor, M. (2021). Organizational ethics and employee conduct: A framework for ethical decision-making. Journal of Business Ethics and Governance, 5(1), 45–59.

Ali, M., & Noor, M. I. (2022). Enhancing financial reporting quality through effective use of accounting information systems. Asian Journal of Accounting and Governance, 18(1), 45–58. https://doi.org/10.17576/ajag-2022-18-04

Al-Shammari, M., & Al-Hamadan, A. (2024). IT governance and organizational accountability: The role of technology in corporate governance. International Journal of Accounting Information Systems, 45, 100745. https://doi.org/10.1016/j.accinf.2023.100745

Bergman, P., & Chang, R. (2022). Centralized internal control and financial performance in multinational enterprises. Accounting Horizons, 36(2), 55–74. https://doi.org/10.2308/horizons-2022-011

Bianchi, G. (2023). Epistemological and methodological challenges of subjectivity. In Figurations of human subjectivity (pp. 89–116). Springer. https://doi.org/10.1007/978-3-031-19189-3_5

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Brandler, J. (2024). *Policies And Procedures for Your Organization* (1st ed.). New York, USA. https://www.amazon.com/dp/B0CXYSVC2G

Committee of Sponsoring Organizations of the Treadway Commission. (2013). Internal control Integrated framework. COSO.

Creswell, J. W., & Poth, C. N. (2023). Qualitative inquiry and research design: Choosing among five approaches (5th ed.). SAGE Publications.

Dunkelberger, D. (2022). How the COSO framework forms better internal controls. IS Partners.

Gordon, J. (2022). Internal controls (accounting) explained. The Business Professor, LLC.

Hassan, S., & Omar, F. (2023). Oversight and decision-making in accounting information systems. Journal of Accounting and Organizational Change, 19(4), 501–522. https://doi.org/10.1108/JAOC-2022-0210

Hennink, M., & Bonnie, N. (2022). Qualitative research methods (2nd ed.). SAGE Publications.

Huang, H. (2019). Authorization controls and accountability in accounting information systems. International Journal of Accounting Information Systems, 33, 1–15. https://doi.org/10.1016/j.accinf.2019.04.002

Jones, R., & Robinson, D. (2022). Governance structures in accounting information systems: Balancing control and flexibility. Accounting, Auditing & Accountability Journal, 35(1), 123–147. https://doi.org/10.1108/AAAJ-05-2021-5447

Kaufmann, L., & Miller, T. (2023). Behavioral perspectives in internal control governance: User dilemmas and compliance. European Accounting Review, 32(1), 77–102. https://doi.org/10.1080/09638180.2022.2079213

Kassem, R., & Abdelhafez, E. S. (2022). The impact of IT governance on the efficiency of accounting information systems: Evidence from emerging markets. Journal of Information Systems and Technology Management, 19(2), 210–225. https://doi.org/10.1016/j.jistm.2022.02.005

Kingsley, O., & Alfred, E. (2020). Corporate governance mechanisms and internal audit effectiveness in multinational firms. Journal of Corporate Governance Studies, 12(3), 88–104.

Li, X., & Chen, J. (2022). Training and development in governance-driven accounting environments. International Journal of Accounting Information Systems, 43, 100695. https://doi.org/10.1016/j.accinf.2022.100695

Li, X., & Chen, Y. (2022). The impact of organizational training on compliance and governance effectiveness. Journal of Organizational Management, 18(1), 45–60.

Li, Z., Zhu, D., & Mishra, A. R. (2023). Evaluation of critical success factors of dynamic enterprise risk management in manufacturing SMEs. Technological Forecasting and Social Change.

Lopez, R., & Garcia, F. (2021). Governance risk and compliance in digital accounting systems. Journal of Business Research, 134, 100–115. https://doi.org/10.1016/j.jbusres.2021.05.014

Nguyen, P., & Lee, K. (2023). Internal control governance and user adaptation in AIS. Accounting Review, 98(2), 245–272. https://doi.org/10.2308/accr-2023-003

Nguyen, T., & Lee, S. (2024). Governance alignment and internal control challenges in multinational accounting information systems. Journal of Accounting and Organizational Change, 20(1), 55–72.

O'Donnell, L., Smith, R., & Taylor, J. (2023). Accounting information systems and governance integration: User perspectives. International Journal of Accounting Information Systems, 44, 100711. https://doi.org/10.1016/j.accinf.2023.100711

Poppy Sofia Koesway, Haryanto, H., & Handoyo, S. (2024). The impact of corporate governance, internal controland corporate reputation on employee engagement: The moderating role of leadership style. Accounting, Corporate Governance & Business Ethics, 11(1). https://doi.org/10.1080/23311975.2023.2296698

Rahim, N., & Alam, S. (2023). Ethics and compliance in corporate governance: An integrated framework. Corporate Governance: An International Review, 31(3), 412–431. https://doi.org/10.1111/corg.12478

Rahim, M., & Siddiqui, A. (2021). Ethical dilemmas in organizational decision-making: Challenges and solutions. Journal of Business Ethics and Leadership, 7(1), 45–60.

Rashid, A., & Yusoff, R. (2024). Financial reporting imbalances in AIS-supported processes: Implications for governance. Journal of Accounting and Finance, 24(1), 33–56. https://doi.org/10.1108/JAF-11-2023-012

Romney, M. B., & Steinbart, P. J. (2024). Accounting Information Systems (16th Ed.). Pearson.

Romney, M. B., & Steinbart, P. J. (2021). Accounting Information Systems (15th Ed.). Pearson.

Singh, D., & Wright, A. (2022). Qualitative research methods in accounting information systems. Qualitative Research in Accounting & Management, 19(2), 205–228. https://doi.org/10.1108/QRAM-05-2021-0105

Smith, A. (2020). Ontological and epistemological foundations of qualitative research. Qualitative Research Journal, 20(3), 223–236. https://doi.org/10.1108/QRJ-11-2019-0086

Zhou, T., & Lee, H. (2024). Multi-Layer Authentication and Productivity Trade-Offs in Financial Systems. Journal Of Information Security and Applications, 79, 103645.