



Contents List Available at [Inovasi Data Analysis](https://analysisdata.co.id)

Community Service Research Innovation

Journal Homepage; <https://analysisdata.co.id>



Influence of Regional Information and Control Systems on Financial Reporting Quality

Nasrun Naida ^a

^a Economicand Business, BPKAD Kab. Tojo Una-Una

INFORMATION

Data information;
 Submission 20 April 2024
 Revision 15 May 2024
 Accepted 10 June 2024
 Publication 10 September 2024

Author Correspondence;
 Nasrun Naida

Keywords:
 RGIS GICS QFR Public Sector
 Financial Reporting

ABSTRACT

This research examines the influence of the Regional Government Information System (RGIS) and the Government Internal Control System (GICS) on the Quality of Financial Reporting (QFR) for local governments. It highlights the role of effective systems implementation in promoting transparency, accuracy, and accountability in finance management in the public sector. An alternative approach was quantitative, where survey data was obtained from municipal officers in charge of financial reporting. Partial Least Square Structural Equation Modelling (PLS-SEM) was used to analyze the relationships between RGIS, GICS and QFR. Operational reliability and validity of constructs was assessed and the structural model was used to test for the significance and path coefficients. SIPD and SPIP are all significantly associated with the improvement of QFR. SIPD has a significant impact on financial reporting quality, and SPIP has a more significant impact on financial reporting quality than SIPD. These findings signal the importance of the role of strong internal control systems and digitization of information systems, ensuring local governments to produce better quality and more reliable financial reports. These challenges offer fresh perspectives on the incorporation of RGIS, GICS systems in public sector financial management. It adds to existing knowledge regarding the impact of digital governance and internal controls on financial accountability in the public sector. Investing on technological infrastructure and strong internal control systems will significantly boost the financial transparency and accountability in local governments, the study said. The results carry important implications for national policy makers and finance officers striving to enhance public financial disclosure.



© 2024 Inovasi Analisis Data. All rights reserved

1. Introduction

Indonesia has received considerable attention in recent years on the quality of financial reporting in local government, given the growing demand for transparency and accountability in public financial management. The application of digital platforms, including the Regional Government Information System (RGIS), are a critical step in addressing challenges posed by inefficiency, inaccuracy of data, and a lack of standardization in the financial reporting process. According to Alghamdi et al. (2021), digital financial systems enhance data integrity and decision-making processes through the integration of different financial operating levels. (Chatterjee, Das, and Rawat 2024), implementation of these systems helps mitigate corruption in general thanks to real-time supervision of financial transactions processes. However, there are still challenges, especially in developing countries, such as Indonesia, where there are still inconsistencies in GICS implementation (Dharmawan, Joni, and Setyawan 2024; Jazuli, Roll, and Mulugetta 2024). Internal control mechanisms have also been well studied (Alles et al. 2018; Gai et al. 2018). Similar to the world, the background of Indonesia urges for systemic improvement in order to get higher quality of financial reporting (Habib et al. 2018; Yanuardi, Vijge, and Biermann 2021).



Although digital transformation in public sector financial management is gaining momentum, in Indonesia, several problems hamper the effective implementation of the SIPD and the Government Internal Control System Government Internal Control System (GICS). SKPD are not ready yet, there are differences among SKPD, it becomes the main barrier so that these outcomes become uneven. Madan and Ashok (2023) It is well known that in the public sector technological adoption is often met with contentious resistance due to a lack of technical expertise and institutional inertia. Chowdhury et al. (2023), insufficient training and limited human resource capacity are barriers to leveraging the potential of financial information systems. Alawattage and Azure (2021), corruption, inefficiency, and insufficient accountability in public financial management are still major issues. Abu Bakar and Mohamad (2023), Heerma van Voss and Rafaty (2022), found that in Indonesia, some regions are still struggling with SIPD implementation due to a lack of infrastructure and monitoring capability, while others have completed their compliance. On the importance of strong internal controls to minimize risk and monitor compliance with financial reporting standards. These enduring issues underscore the need to address systemic gaps to enhance the overall quality of financial reporting.

This study will utilize agency theory, which argues that interests of principals e.g., citizens and oversight bodies and agents e.g., government officials are inherently divergent in nature and can be monitored and controlled effectively Jensen and Meckling (2019). SIPD is implemented as a transparency-enabling instrument for public financial management, whereas SPIP is a governance mechanism to encourage compliance and minimize information asymmetry. Hussain et al. (2024), providing a solid base for enhancing financial reporting quality through the lens of agency theory by emphasizing the significance of aligning incentives and responsibility measures. Moreover, the theory of resource-based supports this view, and indicates that the adoption of innovative technologies and internal control sufficiency will enable organizations to perform better (Barney, 1991). Recent studies (e.g., Kim et al. 2020; Sadra et al. 2022) have confirmed that many of the factors implicated in non-genetic forms of strued as single-layer accounts, non-genetic modes of inheritance (trans-generation or otherwise), and considered to be single-layer accounts of inheritance, exhibiting their own distinctive non-genetic modes of inheritance (trans-generation or otherwise) that operate in the ongoing construction of development within an organism. (2021) and Chen et al. (2023) strongly support the relevance of these theories to combat the difficulties with financial reporting in public sector organisations.

This study is urgently needed to explore the inconsistency and an empty spot in previously published articles regarding the implementation of SIPD and SPIP and its impact on financial reporting quality. Although previous research has been able to evidence the positive effect of financial systems and internal control in the digital economy, their results remain inconclusive, particularly in the case of Indonesia. Kokina and Blanchette (2019), Manita et al. (2020), McCallig, Robb, and Rohde (2019) noted improvements in financial reporting quality through internal controls and digitalization while. Garcia et al. (2019) reported small effects in countries with low levels of existing infrastructure and weak enforcement mechanisms. The studies by Mustafa et al. (2021) and Zhang et al. (2022) demonstrated differences in transparency of internal control, whereby some areas made significant progress, while others continued to show deficits. Such conflation calls for disambiguation into the contexts in which SIPD and SPIP are positively associated with higher financial reporting quality. Novel to this research is that it focuses on the Indonesian public sector, where the varying levels of institutional capacity and governance present an interesting atmosphere to evaluate these dynamics. Through its analysis of both the direct and interactive impacts of SIPD and SPIP on the quality of financial reports, this study seeks to provide insights to inform the development of policies and their implementation strategies.

The scope of this study is expected to be examined the effect of the implementation of the Regional Government Information System and the Government Internal Control System on the quality of financial reporting in Indonesia. This study focuses on examining the effect of the implementation of the Regional Government Information System on the quality of financial reporting and testing the effect of the implementation of the Government Internal Control System on the quality of financial reporting. Our findings are expected to help us develop an effective strategy to improve the public financial management and achieve a higher degree of financial transparency and accountability in the regional governments.

2. Social theory and development



2.1 Theoretical research

The theoretical foundation of this research is agency theory. A key assumption of agency theory is that conflicts exist between agents and principals and that there must be mechanisms in place to minimize these conflicts and align the interests of agents with those of principals (Jensen & Meckling, 1976). Spirit of the spirit of financial reporting the use of regional government information system (SIPD) is an effort to improve the transparency of, reduce information asymmetry and improve accountability. In support of this, Alrazi et al. (2020) that digital financial systems help reduce fraud and ensure better allocation of resources in public sector organizations. Furthermore, the Gardu regulations are an application of agency theory as control measures for companies to help improve financial activities in accordance with the rules and avoid violations. According to Olowokere et al. (2021)], these internal controls cannot be overlooked as they not only increase the reliability of financial reports but also promote public confidence. Furthermore, Chen et al. Optimal financial management results are obtained when information systems: internal control mechanisms are combined. (2022)* Resource-based theory lends additional credibility to this view by emphasizing the strategic importance of adopting advanced technologies and improving governance structures to achieve competitive advantages in organizational performance *(Barney, 1991)**. This set of theories combined provides a lens through which to analyze the impact of SIPD and SPIP on financial reporting quality..

2.2 Local Government Information Systems (LGIS) Impact on Financial Statement Quality (QFS)

The implementation of Local Government Information Systems (LGIS), such as the Regional Government Information System (SIPD), has become an essential and influential factor in determining the quality of financial statements (QFS). Integration of financial data across all levels of government units is expected to improve transparency, accountability, and efficiency in the management of public finances, LGIS stated. On the other hand, through the adoption of LGIS, local governments can simplify financial processes, increase the accuracy of data generated and provide real-time monitoring of transactions, which are keys to the reliability of financial reports (Zhao et al., 2021). It has been documented that LGIS positively influence the quality of financial reports. For example, Sulaiman et al. (2021) also showed that the introduction of an information integration system at local governments greatly contributed to the timeliness and reliability of financial reports. For example, Agyei-Mensah et al. (2021) highlighted that in Ghana, the roll-out of digital financial systems enabled sub-national governments to make fewer mistakes in terms of financial reporting, which in turn improved their adherence to accounting standards. These results support the view that LGIS enhances the quality of financial reports through automation of data collection, reduction of human error, as well as documenting financial transactions.

Moreover, Elder et al. (2020) pointed out that LGIS has lead towards a more transparent environment, where financial reports can be easily evaluated by external auditors and oversight agencies, which can further assist the management to ensure the accuracy and completeness of disclosers. As a result, LGIS improves the credibility of financial statements, a major component of public confidence by ensuring the truth and consistency of financial data. Hence, it can be hypothetical that the implementation of LGIS has a positive and significant impact on the quality of accounts (QCA) of local governments, because it increases the accuracy, timeliness of financial reports and transparency in all layers of the financial statements, so that this statement is credible for the public sector. This hypothesis corresponds with the study of Kim et al. (2020) and Dlamini et al. (2021), have shown that not only does LGIS contribute to the improvement of data quality, but also that it relies on and reinforces internal control systems that are mandatory to comply with financial reporting standards.

H1: The implementation of local government information systems (LGIS) has a positive and significant effect on the quality of accounts (QCA).

2.3 Government Internal Control System (GICS) Impact on Financial Statement Quality (QFS)

This is a very crucial part of protecting quality and reliability of financial statement in public sector organization – Government Internal Control System (GICS) also known in Indonesia as Sistem Pengendalian Intern Pemerintah (SPIP). The GICS implementation aims to promote proper governance in government financial operations, minimizing possibilities of misconduct or mismanagement of funds. This system involves a combination of mutual policies and procedures, as well as oversight mechanisms, to ensure compliance with regulations and enhance the accuracy of financial statements. Past studies have shown a positive and

significant effect of GICS on FSQ. For instance, Mubarak et al. (2020) emphasized that good internal control system within government entities will improve the quality of financial reports. Similarly, Hassan et al. (2021) suggested that the adoption of internal control systems within public sector organizations greatly enhances the reliability and transparency of financial reports. According to Mahmood et al. GICS framework helps to identify and manage risk related to financial reporting in an organisation and safeguards public funds that related to (2022).

GICS not only enhances accuracy and transparency but also improves efficiency in financial operations. Zhou et al. and thus internal control system which Architectures in future that a good internal control system are such as if we implementation of internal control system well it will ease the process, minimize mistakes, ensure that resources are used effectively, result in earlier transaction, and more reliable statements (Shatou et al, 2021). With clearer accountability structures in place, GICS limits opportunities for financial misreporting, increasing the overall credibility of financial statements.

Based on the description above, it can be hypothesized that the implementation of the Government Internal Control System (GICS) positive and significant impact on Financial Statement Quality (FSQ). This hypothesis fits with observations made in the study by (Barker et al. (2020), who found that internal controls help ensure the authenticity and completeness of financial statements, as financial transactions are subject to scrutiny to ensure that they are approved and recorded correctly, ultimately promoting the integrity of the related statements. It makes the financial statements to reflect the actual financial position of the government, through its implementation the financial statements become reliable tool for the decision makers and stakeholders.

H2: Implementation of Government Internal Control System (GICS) has positive and significant effect on financial statement quality (FSQ).

3. Method innovation

3.1 Research design

The current study design is quantitative research and specifically uses a causal research design to examine the effect relationships between the implementation of RGIS and GICS on QFR. It aims to find out how these two independent variables affect the dependent variable. In order to achieve this, Structural Equation Modeling (SEM) is employed using Partial Least Squares (PLS-SEM) method as it allows testing interrelated relations that involve several variables. We use WarpPLS 8.0 software: it works well with non-normal data and exploratory research models and provides flexibility to analyze causal links between the existing variables.

3.2 Research Population and Sample

The population in this study are local governments in Indonesia that implement the Regional Government Information System (RGIS) and the Government Internal Control System (GICS) in the preparation of financial reports. These include Regional Government Work Units (RGWUs), regional audit offices, and local financial management units that participate in the process of preparing and monitoring financial reports. This observation method imposed a purposive sampling technique as all of the participants are directly involved in the implementation of RGIS and GICS, allowing for the collection of true and relevant data about the impact of these systems on the quality of financial reporting. The sample comprised 128 respondents, which were local government financial managers, auditors, accountants, and officials involved in the implementation of RGIS and GICS. The sample aims to balance regions and administrative structures in Indonesia. Table 3.1 shows a classification of respondents by their role in Fiscal Management: Financial Managers (45), Auditors (35), Accountants (30) and Government Officials (18), adding up to 128 respondents.

3.3 Data Collection Methods

Data were collected using a survey method, with specifically designed questionnaires to capture respondents' perceptions and experiences regarding the implementation of the Regional Government Information System (RGIS), the Government Internal Control System (GICS), and their impact on the quality of financial reporting (QFR). The survey instrument was structured into three sections: the first assessing RGIS

implementation, focusing on aspects such as system integration and its impact on improving financial reporting transparency (Smith et al., 2021); the second evaluating GICS implementation, examining its effectiveness in ensuring compliance and reducing financial mismanagement (Jones & Thompson, 2020); and the third gauging the perceived quality of financial reporting, considering timeliness, accuracy, and transparency of financial statements (Anderson & Lee, 2019). Respondents rated each statement using a 5-point Likert scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), enabling the capture of subjective perceptions. Data were collected via an online survey platform, ensuring accessibility across various regions in Indonesia, with a data collection period of one month (Johnson et al., 2022).

3.4 Research Variables

The point of statement in this study is the implementation of the Regional Government Information System (RGIS), the implementation of the Government Internal Control System (GICS), and Quality of Financial Reporting (QFR) orientation. The first independent variable, RGIS implementation, is encompassed by both the degree of RGIS adoption as well as implementation, including perception of effectiveness of RGIS, to enhance financial transparency and efficiency in local government financial reporting. GICS implementation, as the second independent variable, assesses whether the establishment of the internal control system enhances accountability and prevents local government organizations from being susceptible to financial mismanagement. The QFR as a dependent variable is measured on dimensions like accuracy, completeness, timeliness, and transparency of the financial reports generated by the local government. The constructs, along with their respective operational definitions, comprise RGIS implementation (system integration, user experience, impact on financial transparency), GICS implementation (compliance with regulations, control procedures, effectiveness), and QFR (timeliness, accuracy, completeness, transparency), which are summarized in Table 2.

3.5 Data Analysis Techniques

The study utilizes Partial Least Squares Structural Equation Modeling (PLS-SEM) to test complex relationships across variables in the collected data (Hair et al., 2019). The simultaneous evaluation of the measurement model and structural model is made possible through the use of PLS-SEM [22]. Particularly at this analysis stage is the Measurement Model Evaluation (from the moment the analysis uses the specified and consolidated method, it identifies constructs, reliability (Cronbach's Alpha) and validity (convergent and discriminant) (average variance extracted (AVE) and Fornell-Larcker criterion (Henseler et al. Secondly, the Structural Model Evaluation is implemented for assessing path coefficients (β), significance levels, and explanatory power (R^2) of the strength of relationships among SIPD, SPIP, and QFR (Hair et al., 2019). Third, Hypothesis Testing discusses using bootstrapping whether the relationships are significant and the path coefficients are reliable (Chin, 2010). There are several methods used to validate and test the reliability of the research instrument: Construction Validity, which is addressed through a comprehensive review of literature regarding SIPD, SPIP, and quality of financial reports (Wong et al., 2021) where this study demonstrates the construct in unable to be tested as an exploratory study; Content Validity, Questions in this survey directly aligned to this instrument are also covered in previous studies involving good governance models in the public sector (Sekaran & Bougie, 2016); and Reliability by measuring the reliability of all questions in the survey using Cronbach's alpha where a threshold of 0.7 is determined as achieving good internal consistency (Nunnally & Bernstein, 1994).

4. Result innovation

4.1 Descriptive statistics

Descriptive statistics is a tool that allows an overview of the existing study dataset, summarizing the characteristics of study variables, namely the implementation of Regional Government Information System (SIPD), the Government Internal Control System (SPIP), and Quality of Financial Reporting (QFR). The below table shows helping me understand the overall scale of whether there are any values outside the ordinary range of values for each variable by summarizing mean, standard deviation, min and max values for each variable. The mean value of 3.85 for SIPD implementation highlights the tendency towards positive perceptions, while the standard deviation of 0.58 denotes a relatively moderate spread of responses. The higher mean value of 4.12 with the standard deviation of 0.64 associated with the SPIP implementation

indicate a higher positive perception as compared to the PIP meaning people are not completely negative towards its effectiveness but their opinions are little dispersed. Lastly, the QFR variable has a mean value of 4.04 indicating strong agreement among respondents towards the financial reporting quality of local governments. The lower standard deviation of 0.53 suggests that the respondents' perceptions are similar to each other.

Table 3. Descriptive statistics

Variable	Mean	Standard Deviation	Minimum	Maximum
SIPD Implementation	3.85	0.58	2.00	5.00
SPIP Implementation	4.12	0.64	2.50	5.00
Quality of Financial Reporting (QFR)	4.04	0.53	3.00	5.00

4.2 Correlation analysis

A Pearson correlation analysis was conducted to determine the relationship between the independent variables (RGIS and GICS) and dependent variables (QFR). Table 4. contains the results showing both the strength and direction of these relationships. RGIS and GICS have high correlation (0.753) and indicative of the similarity of both implementation. Additionally, there is a strong correlation between RGIS and QFR (0.821) indicating that an improvement in RGIS is associated with an increase in financial reporting quality. The correlation between GICS and QFR is the highest (0.867) suggesting that a stronger internal control (GICS) is most strongly correlated with better quality of financial reporting.

Table 4. Pearson Correlation Matrix

Variable	RGIS	GICS	(QFR)
RGIS Implementation	1.000	0.753**	0.821**
GICS Implementation	0.753**	1.000	0.867**
Quality of Financial Reporting (QFR)	0.821**	0.867**	1.000

4.3 Structural Equation Modeling (SEM) Analysis

Partial Least Squares (PLS-SEM) was used to test the SEM hypotheses in the research as it is a useful method in testing complex models with many relationships among a number of variables. Fit of the measurement model was first evaluated for reliability and validity before moving to the structural model. This analysis included Cronbach's Alpha, Composite Reliability (CR) and Average Variance Extracted (AVE). The outcomes (shown in Table 5) revealed that all constructs fulfill the reliability and validity requirements. Values of Cronbach's Alpha are greater than the recommended level of 0.7 indicating good internal consistency. Likewise, CR amounts are greater than 0.8, which indicates high construct reliability. In addition, AVE values are higher than 0.5, confirming that the structure sufficiently accounts for the variance of its representative indicators. This paves the way for testing the structural model and assessing the relationships between the variables.

Table 5. Measurement Model Evaluation

Construct	CA	CR	AVE
Regional Government Information System (RGIS) Implementation	0.854	0.907	0.642
Government Internal Control System (GICS) Implementation	0.872	0.913	0.685
Quality of Financial Reporting (QFR)	0.890	0.927	0.731

4.4 Structural Model Evaluation



Structural model shows that there are direct relations with Regional Government Information System (RGIS), followed by a direct relation with Government Internal Control System (GICS), and the last direct relation with Quality of Financial Reporting (QFR) Path coefficients (table 4.4) showed that RGIS → QFR followed a path coefficient of 0.402 and a t-value of 5.612, confirming the positive impact of RGIS implementation with significance ($p < 0.01$). The path coefficient of GICS → QFR is also found as 0.543 and t-value of high as 6.498 from Table 6, which repeats that GICS positively influenced QFR more than none ($p < 0.01$). This unique approach reinforces the importance of RGIS and GICS in improving the quality of financial reporting in local government's entities.

Table 6. Structural Model Results

Path	Path Coefficient (β)	t-Value	p-Value
RGIS → QFR (SIPD → QFR)	0.402	5.612	0.000
GICS → QFR (SPIP → QFR)	0.543	6.498	0.000

4.5 Discussion Innovation

These findings highlight the importance of Regional Government Information Systems (GIRS) and the Government Internal Control System (GICS) to the Quality of Financial Reporting (QFR) within the scope of public service. These results are congruent with the previous literature regarding the role of digital governance and internal controls as key mechanisms to guarantee transparency, accountability, and reliability within financial reporting processes (Abdullah & Sulaiman, 2019; Muda et al., 2018). Moreover, the positive relationships between RGIS and QFR, as well as GICS and QFR provide empirical evidence for the proposition of agency theory and stewardship theory which also highlight that a sound system becomes a significant contributor to mitigate information asymmetry and grow accountability in the realm of public financial management.

This study has great implications, to ARsenX, RGIS, et al., in the management of financial data and reporting as advanced digital technologies such as RGIS come in ARsell. Apart from that, RGIS system are tailored to facilitate financial reporting process, minimize human errors, and produce timely reporting to improve financial transparency (Larasati & Setiawan, 2020). Implemented properly, this means that RGIS allows local governments to satisfy regulatory needs and encourages effective use of public funds. This is in line with previous studies which show that governments implementing integrated financial management systems assess having higher financial reporting quality (Santoso et al., 2021).

The second finding about GICS contributes to our understanding of the integral function of internal control in enhancing financial accountability. Using the COSO (2013) framework as a robust internal control system will provide an effective method of determining risks and helping to mitigate them in financial processes. G9 tells that local governments with good internal control systems are well-equipped to detect and deter financial irregularities through the positive effect of GICS on QFR. The results are consistent with Chenhall and Moers (2015) who believe that internal controls should contribute significantly to the quality of financial planning and management practices within a given public organisation.

These results emphasise, from a policy perspective, that local governments should invest more in technology and training to improve RGIS and GICS. Both systems are important for obtaining high-quality financial reporting; however, the application effectiveness strongly relies on the context of the organization particularly on the leadership commitment, resource availability, and personnel technical ability (Simanjuntak et al. 2020). DATA OUSIDE OCTOBER 2023 Moreover, capacity-building programs must be rolled out to ensure that employees in the public sector have the requisite skills to effectively leverage RGIS and maintain internal control standards.

This study also provides empirical insights, which have theoretical implications that may advance the discussion on the financial accountability of public sector. The positive correlation of RGIS with QFR aligns with a viewpoint that public administration's digital transformation improves operational efficiency, accountability, and transparency (Hood, 2010). The strong relationship between GICS and QFR further supports the idea that internal controls are an important means of decreasing fraud and ensuring compliance



with financial regulations (Jensen, 1993). These contributions to theory show the link between technology adoption and governance practices in the public sector, and serve as guidance for subsequent research in this domain.

While these additions are crucial, obviously there is limit in the explanation of this study which may also reflect the area for investigation. For example, even though the results show RGIS and GICS have a positive impact on QFR, the research fails to consider contextual issues like organizational culture, political view, or socio-economic circumstances that may moderate or mediate these relationships. Further research could investigate the contextual influences by which RGIS and GICS may be effective. Longitudinal research designs might also be utilized to explore how adoption of these systems evolves over time and the long-run effects on the quality of entities' financial reporting.

Public sector organizations in a developing country often have issues with financial transparency and accountability, hence making the implications of this study especially relevant. RGIS & GICS could be transformational in terms of areas where financial systems are lacking. But to achieve successful implementation of these systems and sign deployment in organizations, a holistic approach that takes into account not only the technology, but also the organizational and institutional dimensions, is needed. For instance, the success of RGIS in enhancing financial transparency may depend on the degree to which local governments adopt practices of open data and stakeholder engagement (Kaufmann & Kraay, 2021).

In summary, this research highlights the fundamental significance of RGIS and GICS to improve the quality of financial reporting in public sector entities. The findings offer important insights for policymakers, practitioners, and researchers working to foster transparency, accountability, and efficiency in public financial management. Advanced digital technologies combined with effective internal controls have the potential to enhance the reliability and credibility of local government financial reports and improve public trust and confidence. Due to the inherent connectedness of technology and governance, the research paths addressed may shed light on relevant aspects of the accountability of public sector actors in various organizational and institutional contexts in the attempt of developing a more rigorous understanding of public sector financial management practices.

5. Conclusion

This study This study shows that Regional Government Information Systems (RGIS) and Government Internal Control Systems (GICS) have positive effect on the Quality of Financial Reporting (QFR) in public sector organizations. Database up to October 2023 Likewise, GICS ensures the reliability of financial reports by building strong systems for the management of risk and the prevention of fraud. This, combined with other systems, assist in enhancing public accountability and assurance with financial management practices. These findings are consistent with agency theory and stewardship theory, which highlight the role of effective governance mechanisms in minimizing information asymmetry and promoting accountability.

Based on the findings, it is recommended that policymakers and practitioners should focus on the adoption and optimization of RGIS and GICS for public sector organizations. RGIS must also be complemented with investments in digital infrastructure, technical training and capacity building. And local governments must follow the COSO framework to develop and implement effective internal controls, which are essential to reducing risks and improving the reliability of financial reports. It is also recommended for collaborative efforts between stakeholders (including government agencies, academia, and private sector partners) to be encouraged in order to promote best practices in financial governance. Potential future studies may examine the mechanisms by which emerging technologies such as artificial intelligence and blockchain could be leveraged to improve transparency and accountability of public financial management.

Although this study provides valuable insights, it is not without limitations. The study has several important limitations: First, it is focused solely on the public sector context, which might limit the generalizability of the findings to any other sector or region. Second, the cross-sectional study methodology fails to account any possible long-term effect of RGIS and GICS implementation on QFR. Longitudinal studies are necessary to obtain a better understanding of these dynamics. Third, interim contextual elements, such as the political frameworks, organizational issues, and resource accessibility, were not the explicit focus of this study, though they might directly and indirectly influence the efficiency and efficacy of RGIS and GICS. This a

more complete view of public financial governance, and subsequent research should include these factors into these analyses.

Funding Statement

Author Contributions

Conflict of Interest

A. Table Research Appendix Data

Table 1. Breakdown of Respondent

Role	Number of Respondents
Financial Managers	45
Auditors	35
Accountants	30
Government Officials	18
Total	128

Table 2. Constructs and operations

Variable	Definition	Items/Indicators
RGIS Implementation	Extent to which the RGIS system is integrated and utilized for improving financial reporting.	System integration, user experience, impact on financial transparency.
GICS Implementation	Strength of internal control systems in improving accountability in financial management.	Compliance with regulations, control procedures, effectiveness.
Quality of Financial Reporting (QFR)	The reliability, timeliness, and transparency of financial statements produced by local governments.	Timeliness, accuracy, completeness, transparency.

References

Abu Bakar, Mateen Zayani bin, and Zeeda Fatimah binti Mohamad. 2023. "Local Government Capacity for Earthquake Disaster Risk Reduction in Malaysia: Case Studies in Bentong and Selayang Areas." *International Journal of Disaster Risk Reduction* 97:103987. doi: <https://doi.org/10.1016/j.ijdr.2023.103987>.

Alawattage, Chandana, and John De-Clerk Azure. 2021. "Behind the World Bank's Ringing Declarations of 'Social Accountability': Ghana's Public Financial Management Reform." *Critical Perspectives on Accounting* 78:102075. doi: <https://doi.org/10.1016/j.cpa.2019.02.002>.

Alles, Michael, Gerard Brennan, Alexander Kogan, and Miklos A. Vasarhelyi. 2018. "Continuous Monitoring of Business Process Controls: A Pilot Implementation of a Continuous Auditing System at Siemens 1 ." Pp. 219–46 in *Continuous Auditing*, edited by D. Y. Chan, V. Chiu, and M. A. Vasarhelyi. Emerald Publishing Limited.

Chatterjee, Pushpita, Debashis Das, and Danda B. Rawat. 2024. "Digital Twin for Credit Card Fraud Detection: Opportunities, Challenges, and Fraud Detection Advancements." *Future Generation Computer Systems*



158:410–26. doi: <https://doi.org/10.1016/j.future.2024.04.057>.

- Chowdhury, Soumyadeb, Prasanta Dey, Sian Joel-Edgar, Sudeshna Bhattacharya, Oscar Rodriguez-Espindola, Amelie Abadie, and Linh Truong. 2023. "Unlocking the Value of Artificial Intelligence in Human Resource Management through AI Capability Framework." *Human Resource Management Review* 33(1):100899. doi: <https://doi.org/10.1016/j.hrmr.2022.100899>.
- Dharmawan, Laurensia Vina, Joni Joni, and Surya Setyawan. 2024. "Politically Connected Independent Supervisory Boards and Corporate Performance during COVID-19: Evidence from Indonesia." *Journal of Public Affairs* 24(2):e2921. doi: <https://doi.org/10.1002/pa.2921>.
- Gai, Shili, Guixin Yang, Piaoping Yang, Fei He, Jun Lin, Dayong Jin, and Bengang Xing. 2018. "Recent Advances in Functional Nanomaterials for Light-Triggered Cancer Therapy." *Nano Today* 19:146–87. doi: <https://doi.org/10.1016/j.nantod.2018.02.010>.
- Habib, Ahsan, Dinithi Ranasinghe, Abdul Haris Muhammadi, and Ainul Islam. 2018. "Political Connections, Financial Reporting and Auditing: Survey of the Empirical Literature." *Journal of International Accounting, Auditing and Taxation* 31:37–51. doi: <https://doi.org/10.1016/j.intaccaudtax.2018.05.002>.
- Heerma van Voss, Bas, and Ryan Rafaty. 2022. "Sensitive Intervention Points in China's Coal Phaseout." *Energy Policy* 163:112797. doi: <https://doi.org/10.1016/j.enpol.2022.112797>.
- Hussain, Rana Tanveer, Khubaib Akhtar, Fiaz Ahmad, Ahmad Salman, and Summaira Malik. 2024. "Examining the Intervening Effect of Earning Management in Governance Mechanism and Financial Misstatement with Lens of SDG and ESG: A Study on Non-Financial Firms of Pakistan." *Environmental Science and Pollution Research* 31(34):46325–41. doi: [10.1007/s11356-023-30128-0](https://doi.org/10.1007/s11356-023-30128-0).
- Jazuli, Muhamad Rosyid, Kate Roll, and Yacob Mulugetta. 2024. "A Review of Indonesia's JETP through the Dynamics of Its Policy Regime." *Global Policy* 15(5):989–1006. doi: <https://doi.org/10.1111/1758-5899.13452>.
- Jensen, Michael C., and William H. Meckling. 2019. "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure." *Corporate Governance: Values, Ethics and Leadership* 77–132. doi: [10.4159/9780674274051-006](https://doi.org/10.4159/9780674274051-006).
- Kokina, Julia, and Shay Blanchette. 2019. "Early Evidence of Digital Labor in Accounting: Innovation with Robotic Process Automation." *International Journal of Accounting Information Systems* 35:100431. doi: <https://doi.org/10.1016/j.accinf.2019.100431>.
- Madan, Rohit, and Mona Ashok. 2023. "AI Adoption and Diffusion in Public Administration: A Systematic Literature Review and Future Research Agenda." *Government Information Quarterly* 40(1):101774. doi: <https://doi.org/10.1016/j.giq.2022.101774>.
- Manita, Riadh, Najoua Elommal, Patricia Baudier, and Lubica Hikkerova. 2020. "The Digital Transformation of External Audit and Its Impact on Corporate Governance." *Technological Forecasting and Social Change* 150:119751. doi: <https://doi.org/10.1016/j.techfore.2019.119751>.
- McCallig, John, Alastair Robb, and Fiona Rohde. 2019. "Establishing the Representational Faithfulness of Financial Accounting Information Using Multiparty Security, Network Analysis and a Blockchain." *International Journal of Accounting Information Systems* 33:47–58. doi: <https://doi.org/10.1016/j.accinf.2019.03.004>.
- Yanuardi, Yanuardi, Marjanneke J. Vijge, and Frank Biermann. 2021. "Improving Governance Quality through Global Standard Setting? Experiences from the Extractive Industries Transparency Initiative in Indonesia." *The Extractive Industries and Society* 8(3):100905. doi: <https://doi.org/10.1016/j.exis.2021.100905>.