

Strengthening Governance in Higher Education: The Role of Internal Audit as the Third Line of Defense

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ABSTRACT

This study examines the internal audit functions at four universities, both public and private, in the Special Region of Yogyakarta, Indonesia, with a focus on their contribution to governance and their role as the organization's third line of defense, as recommended by The Institute of Internal Auditors. Employing a qualitative research approach, the study utilizes descriptive data analysis to assess the effectiveness of internal audits in these institutions. The findings reveal that while the internal audit functions in both state and private universities receive adequate organizational support, they face resource constraints, particularly in state universities that are not yet legally incorporated and private universities with newly established audit functions. The study also highlights the diversity of audit activities, including review and consultation, with more established internal audit units demonstrating greater variety and depth in their assignments. Moreover, the internal audit function emerges as a strategic partner in risk management, effectively serving as the third line of defense through regular coordination and communication with university management. This research underscores the critical role of internal audits in enhancing governance and managing risks within the higher education sector.

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INTRODUCTION

The regulations governing internal audits in Indonesian higher education institutions reveal a dualistic nature, marked by distinct procedures for establishing and operationalizing internal supervisory units. In state universities, these procedures are clearly defined, while in private universities, they fall under the jurisdiction of the relevant governing body as per Government Regulation No. 4 of 2014 on the Implementation of Higher Education and the Management of Higher Education (Ramirez & Tejada, 2018). This disparity is significant given that private universities vastly outnumber state institutions in Indonesia ([Austin & Jones, 2018](#); [Mok, 2019](#)).

According to data from the Directorate General of Higher Education in 2020, private universities constituted a substantial 66.27% of all higher education institutions, totaling 3,044, compared to 122 state universities, 1,240 religious state universities, and 187 institutions managed by technical ministries, which together made up only 33.73% of the total (Direktorat Jenderal Pendidikan Tinggi, 2020). The Internal Audit Function (IAF) within universities plays a critical role in supervising non-academic aspects, including the auditing of financial reports, the procurement of goods and services, and monitoring the follow-up to external auditor findings (Craig et al., 2014; Christopher, 2015). Additionally, the IAF provides consultation services, all under the direct oversight of the Chancellor or the highest authority within the university. The university's Supervisory Board or Audit Committee further supervises the internal audit function (Fitriyah, 2018; Sulistiani et al., 2023).

However, a notable phenomenon is the inconsistency in the presence and structure of internal audit functions across universities (Yodianti & Nugraheni, 2023). While state universities often integrate these functions within their organizational structure, in private universities, internal audit responsibilities may be embedded within the governing body itself (Nisak & Rochayatun, 2023; Olagunju et al., 2023). This inconsistency extends to the status of auditors, with many in state universities serving as functional lecturers rather than specialized auditors, leading to variations in the scope of work and audit practices across different institutions.

Research on the IAF in Indonesian higher education by Rusdi et al. (2023) highlighted significant differences in audit scope between state universities designated as public service agencies and those that are not (DeSimone & Rich, 2020). These differences pertained to audit objectives, the nature of procedures, and the timeframe for audits. Furthermore, research conducted at the Open University found that the role of internal auditors extended beyond traditional supervision to include consulting and catalytic responsibilities (Fitriyah, 2017; Fonseca et al., 2020).

The competence and independence of internal auditors are crucial for the professional care of internal audit work. ElHaddad et al. (2020) demonstrated that these factors positively influence audit quality within higher education institutions in Libya. However, challenges remain, particularly regarding the lack of comprehensive work rules and technical guidelines, as seen at the Health Polytechnic of Palembang, where the IAF's effectiveness is hindered by limited human resource competencies, insufficient management awareness of IAF's role, and inadequate budget allocations (Sukrisno, 2020).

International comparisons reveal additional insights. Research on public universities in Australia, for instance, found a flexible organizational structure with no mandatory rules regarding audit scope, types, or the minimum number of auditors (Christopher, 2015). Meanwhile, a survey of 415 internal audit heads in Switzerland, Germany, and Austria identified coordination and communication as the most significant challenges in implementing the three lines of defense model (Bantleon et al., 2020). The Institute of Internal Auditors (IIA) has long advocated for this model, emphasizing that internal audit functions as the third line of defense in any organization, regardless of its type or size (Institute of Internal Auditors, 2020). Eulerich (2021) further explained that this model is designed to help organizations effectively manage risk.

The longevity of an internal audit function within an organization enhances its ability to provide value, as Bello et al. (2018) noted. In Indonesia, the Ministry of Education and Culture has expressed its commitment to strengthening the role of internal supervision to enhance the quality and accountability of higher education governance, thereby affirming the importance of IAF as a critical component of the three lines of defense in state universities and Higher Education Service Institutions (LLDikti) (Al Kadri, 2015; Sukrisno, 2020). Despite the majority of Indonesian universities being private, the regulatory framework governing IAF is more rigid in state universities, creating an imbalance that this research seeks to address.

This study aims to explore the implementation of Internal Audit Functions (IAF) in both public and private higher education institutions to strengthen governance practices. By evaluating the effectiveness of IAF as the third line of defense, the research intends to assess how well these functions ensure compliance with higher education governance regulations. This research builds on previous studies that have primarily focused on IAF in state universities in Indonesia. By expanding the scope to include private universities, this study aims to provide a comprehensive examination of IAF's role in higher education governance under the principles of agency theory.

The urgency of this research is underscored by the increasing complexity and scale of higher education in Indonesia, where the majority of institutions are privately managed. The governance issues faced by these institutions are exacerbated by the absence of a standardized internal audit framework, which significantly jeopardizes their operational integrity and accountability. As higher education institutions are crucial to national development, ensuring robust governance practices is imperative.

A critical gap in the current literature is the limited focus on private universities, which constitute the majority of higher education institutions in Indonesia. While previous studies have provided valuable insights into the functioning of IAF in state universities, they have not adequately addressed the unique challenges faced by private institutions, where the governance structure and regulatory oversight differ significantly. This research seeks to fill this gap by offering a comparative analysis of IAF in both public and private universities, thereby contributing to a more nuanced understanding of governance in higher education.

Moreover, the study responds to the call for more empirical research on the effectiveness of the three lines of defense model in higher education settings. The findings from this research are expected to inform policymakers and educational administrators about the best practices for implementing internal audit functions that are tailored to the specific needs of different types of universities. By doing so, the research aims to enhance the overall governance framework within Indonesia's higher education sector.

In conclusion, this study is timely and necessary, given the critical role that higher education plays in national development and the growing demand for accountability and transparency in university governance. The research will provide insights that are not only relevant to Indonesia but also to other countries facing similar challenges in higher education governance.

Literature Review

Internal Audit Function (IAF)

The Indonesian Government provides regulations that all state and private universities must have a minimum of 5 elements in their organization, namely 1) policymakers, 2) academic implementers, 3) supervisors and quality assurance, 4) academic support, 5) administrative implementers. However, it can be seen that there are differences regarding the naming and scope of each element of state university governance. In contrast, private universities are regulated separately by the Organizing Body. In addition, through regulations from the Ministry of Education and Culture in 2017 Number 22 concerning Internal Supervision Units within the Ministry of Education and Culture, the Indonesian Government regulates the Internal Supervision Unit regarding duties and functions, membership, number of members, and technical guidance. This regulation applies to the Ministry of Education (Republic of Indonesia, 2017). Based on Government Regulation Number 4 of 2014 concerning the Implementation of Higher Education and University Management, university governance in Indonesia can be seen in Figure 1.

Based on the Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 22 of 2017, the definition of internal supervision is explicitly explained as the entire process of review, evaluation, monitoring and other supervisory activities regarding the implementation of organizational tasks and functions which aim to control activities, safeguard property and assets, implementing good financial reports, increasing effectiveness and efficiency, and early detection of irregularities and non-compliance with statutory provisions (Republic of Indonesia, 2017). Based on the International Standards for the Professional Practice of Internal Auditing from The Institute of Internal Auditors, internal audit activities must evaluate risk exposure related to an organization's governance, operations and information systems, including achieving the organization's strategic objectives; reliability and integrity of financial and operating information; effectiveness and efficiency of operations and programs, asset security; compliance with laws, regulations, policies, procedures and contracts.

IAF is formed to assist in carrying out supervision over the implementation of organizational duties and functions. Republic of Indonesia (2017) explains that IAF is functioned to:

- 1) develop a monitoring program,
- 2) oversee policies and programs,

- 3) supervise the management of personnel, finances and state property,
- 4) monitor and coordinate follow-up to internal and external audit results,
- 5) assist and review work plans and budgets,
- 6) reviewing financial reports,
- 7) provide suggestions and recommendations,
- 8) prepare a monitoring report,
- 9) evaluate supervision results.

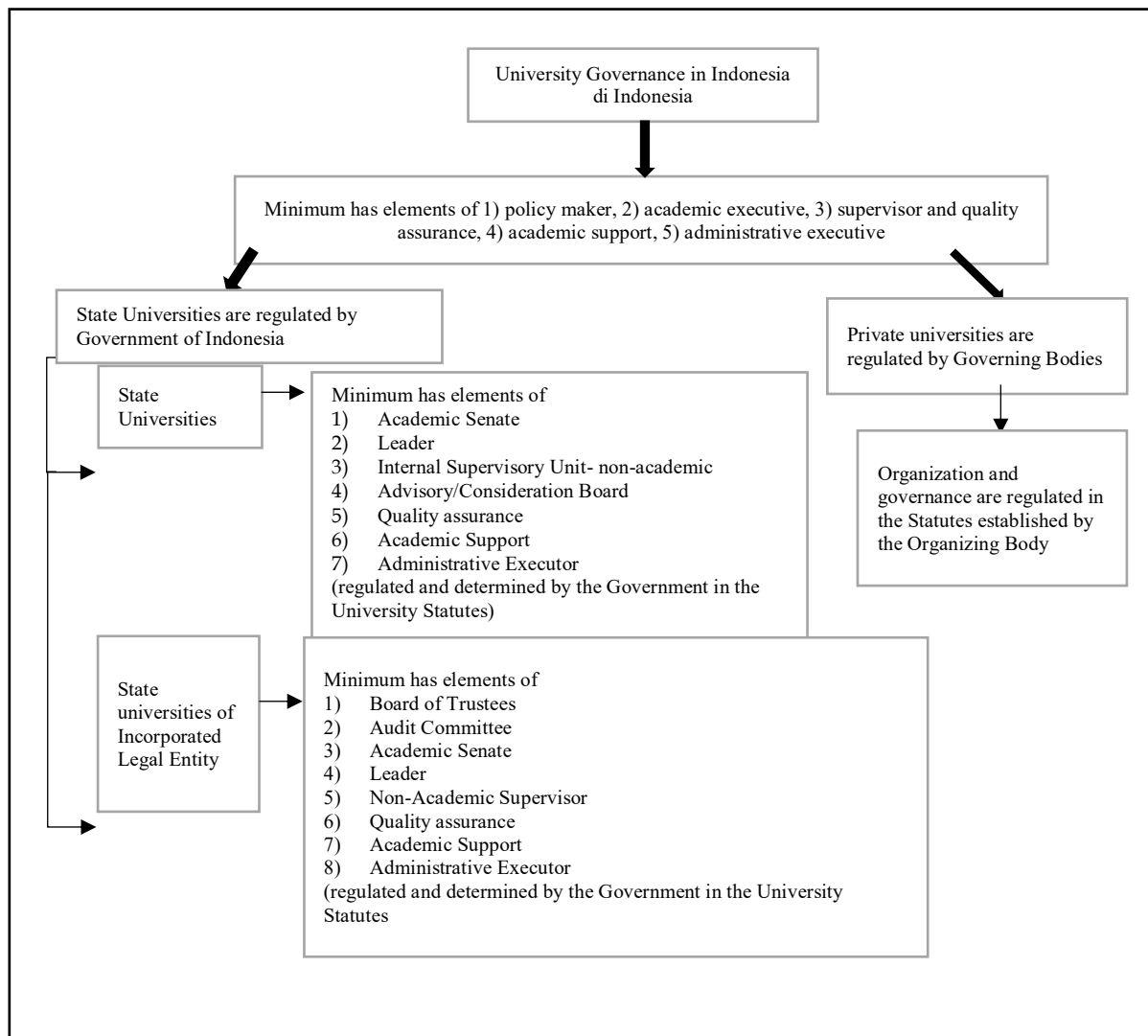


Figure 1. University Governance in Indonesia is in accordance with Government Regulation Number 4 of 2014 (Republic of Indonesia, 2014)

Universities

Universities are institutions that run educational levels after secondary education, which include diploma programs, bachelor's programs, master's programs, doctoral programs, and professional programs, as well as specialist programs, which are organized by universities based on the culture of the Indonesian nation (Republic of Indonesia, 2014). In Indonesia, there are two types of higher education: public and private. Public universities are founded or managed by the Government, while private universities are founded or run by the community.

Universities in Indonesia have six types: universities, institutes, high schools, polytechnics, academies and community colleges. The definitions of the six types of universities are as follows (Republic of Indonesia, 2014):

- 1) Universities are universities that provide academic education and can provide vocational

education in various fields of science or technology. If it meets the requirements, the university can provide professional education.

- 2) Institutes are tertiary institutions that provide academic and vocational education in several specific fields of science and technology. If it meets the requirements, the Institute can provide professional education.
- 3) High Schools are tertiary institutions that provide academic education and can provide vocational education in a particular field of science or technology. If it meets the requirements, the High School can provide professional education.
- 4) Polytechnics are universities that provide vocational education in various fields of science or technology, and if they meet the requirements, Polytechnics can provide professional education.
- 5) Academies are tertiary institutions providing vocational education in one or several specific science or technology branches.
- 6) A Community Academy is a tertiary institution that provides vocational education at diploma one or two levels in one or several specific branches of science or technology based on local excellence or to meet particular needs.

Good Governance and Three Lines of Defense

The principles of good governance or governance in organizations require adequate structures and processes regarding accountability of organizational management organs to stakeholders to supervise the organization by prioritizing integrity and openness. Governance is associated with agency theory, where organizational management is controlled by monitoring mechanisms carried out by stakeholders. This theory shows that accountability from management, independent external auditors, and recognition of the internal audit's role will help management improve organizational governance (Carcello et al., 2005).

Apart from that, there are risk management actions by management to achieve goals so that every decision is made based on risk. The internal audit functions must provide assurance and recommendation services (Institute of Internal Auditors, 2020). “Three lines of defense” have three lines, first, second and third, as shown in Figure 2.

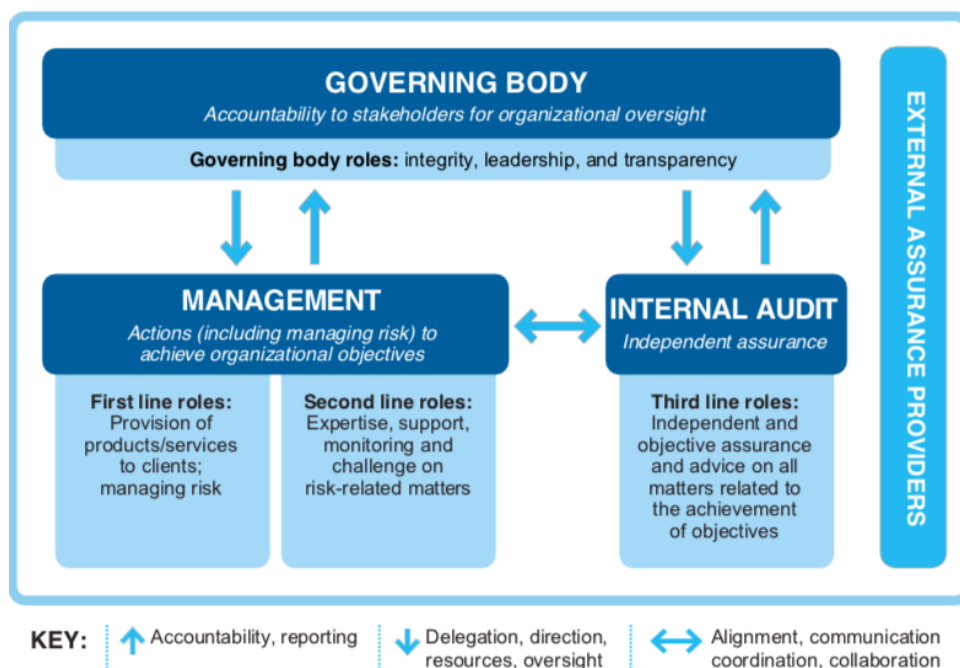


Figure 2. The “Three Lines of Defense” (IIA, 2020)

In three lines of defense, the highest governing body is accountable to stakeholders to supervise the organization. The university's governing body is responsible for building governance structures

and processes, including the required committees. Institute of Internal Auditors (2020) explains that the first line has responsibilities are as follows:

- 1) Lead and direct actions (including risk management) and application of resources to achieve organizational goals.
- 2) Maintain ongoing dialogue with management organs and report plans, realization and expected results related to achieving organizational goals and risks.
- 3) Develop and maintain adequate structures and processes for operational and risk management (including internal control).
- 4) Ensure compliance with laws, regulations and ethical values.

The second line serves as support according to expertise in risk management or risk management. The third line is internal audit, and this function is responsible for maintaining primary accountability to management organs and their independence from implementing work that is management's responsibility. Regarding to the literature review and research background, this research question is: how can the internal audit function in higher education help promote improved governance and serve as "the line of defense"?

METHOD

This study adopts a qualitative descriptive approach to explore the governance practices within higher education institutions, particularly focusing on the role of the Internal Audit Function (IAF) as part of the three lines of defense model. The research was designed to collect and analyze data that provides insight into the internal audit processes at selected universities in Indonesia. The qualitative descriptive approach was chosen because it allows for an in-depth exploration of complex processes and governance structures within universities. This approach is particularly suited to studies where the aim is to understand the "how" and "why" of certain practices, in this case, the implementation and effectiveness of the IAF. By using structured questionnaires, the research aims to capture detailed information from participants directly involved in internal audit functions.

The structured questionnaire was developed based on established frameworks for evaluating internal audit functions in higher education. Specifically, the framework proposed by Christopher (2015) was adapted to assess governance practices, while the framework from the Institute of Internal Auditors (2020) was employed to evaluate the role of IAFs as a critical component of the three lines of defense model. These frameworks were selected for their relevance and comprehensiveness in addressing both governance and audit practices within the context of higher education. The questionnaire was structured into multiple sections, each focusing on different aspects of the internal audit process. These sections included questions on the scope of audits, the independence of the audit function, the competencies of auditors, and the challenges faced by IAFs. The aim was to gather comprehensive data that could provide insights into the current state of internal audit practices and their alignment with best practices as outlined in the selected frameworks.

The sample for this study was purposefully selected to include universities with a significant number of active students, with the chosen institutions having more than 29,000 active students. This criterion ensured that the sample included universities with substantial governance challenges and diverse audit practices, providing a robust basis for analysis. Four prominent universities in the Special Region of Yogyakarta, Indonesia, were selected for the study. These universities were chosen because they represent a mix of private and state institutions, offering a comparative perspective on internal audit practices across different types of governance structures.

Data collection was conducted through a questionnaire survey, which was distributed to the internal audit units and relevant stakeholders at the selected universities. The survey was administered both in person and via online platforms, ensuring a high response rate and comprehensive data collection. The respondents included internal auditors, audit committee members, and other key personnel involved in governance and audit processes at the universities.

The collected data was analyzed using qualitative descriptive analysis techniques. The analysis process involved data reduction, where the responses were categorized and summarized to identify key themes and patterns. This was followed by a descriptive presentation of the findings, which involved synthesizing the data into coherent conclusions that reflect the current state of internal audit

practices at the selected universities. The analysis focused on understanding the effectiveness of the IAF in supporting governance practices, identifying gaps in current practices, and evaluating how well these functions align with the three lines of defense model. The findings were then used to draw conclusions about the strengths and weaknesses of internal audit functions in the context of higher education governance in Indonesia.

RESULTS AND DISCUSSION

The target population consists of 106 private universities and 12 state universities, from which a purposive sampling technique is employed to select four higher education institutions as research samples, comprising two state universities and two private universities with a population of over 29,000 active students. The university sample is chosen because this university is the fourth-largest university in terms of the number of active students. Based on the results of research data analysis, the naming of internal audits in higher education institutions based on research data has different names, which are as follows:

Table 1. Research Sample:
University Name, Type of University, and Age of Internal Audit Function (IAF)

No	University	University Type	Name of IAF	Age of IAF by 2022
1	Universitas Gadjah Mada (UGM)	State University	Kantor Audit Internal	More than 20 years
2	Universitas Negeri Yogyakarta (UNY)	State University	Satuan Pengawas Internal	13 years
3	Universitas Ahmad Dahlan (UAD)	Private University	Bidang Audit Keuangan Internal	7 years
4	Universitas Islam Indonesia (UII)	Private University	Lembaga Audit Yayasan Badan Wakaf UII	More than 20 years

The respondents' demographics include the respondent's position, the length of service, the level of education, and the level of expertise in internal auditing. It is essential to note the demographics of the respondents as it may influence their perspectives and responses to the questionnaire.

Table 2. Position, Gender, Status of Respondents

No	University	Respondent	Gender	Status
1	Universitas Gadjah Mada (UGM)	Secretary of Internal Audit Function	Male	Full-time Auditor
2	Universitas Negeri Yogyakarta (UNY)	Head of Internal Audit Function	Male	Lecturer
3	Universitas Ahmad Dahlan (UAD)	Head of Internal Audit Function	Male	Lecturer
4	Universitas Islam Indonesia (UII)	Head of Internal Audit Function	Male	Lecturer

Based on Table 2, UGM and UII have the longest IAF, more than 20 years, while UAD's IAF is 13 years old, and UNY is still seven years old. The result shows that IAF at both private and state universities in Yogyakarta has been established for quite a long time (more than five years).

Good Governance of Internal Audit Function

Organizational support includes elements such as clear mandates, resources, and organizational structure of the internal audit unit. Internal audit activities refer to the scope of audit, planning, conducting, and reporting of audits. Management's relationship with the internal audit function encompasses communication, cooperation, and feedback mechanisms between internal audit and management. These three dimensions are crucial in determining the effectiveness of the internal audit function in promoting good governance as follows:

The Organizational Support

View of the internal audit function in the eyes of university supervisors, senior management, external auditors

State universities (UGM and UNY) believe that the internal audit function in the eyes of university top management, supervisors and external auditors is essential. Meanwhile, private universities (UAD and UII) believe that the internal audit function is still at a critical level. This shows that the internal audit function in both state and private universities is good in the eyes of top management, university supervisors and external auditors. Meanwhile, the role of the internal audit function as a component of organizational governance in the eyes of external auditors (Financial Audit Agency/Public Accounting Firm) is considered very important at UGM, UNY, and UII. Only at UAD is the role of the internal audit function considered necessary. This difference in perspective is insignificant because the internal audit function is still considered an essential component of organizational governance in the eyes of external auditors.

The research results indicate that in the eyes of university supervisors, senior management, and external auditors, the existence and role of the internal audit function is vital as a component of organizational governance in both state and private universities.

Review of key governance processes

The type of review process that has been carried out so far by the internal audit function to ensure organizational governance is as follows.

Table 3. Review Process for Good Governance Activities

No	Universities	Type of Universities	Review Type
1	UGM	State	1. Budgeting review, 2. Review the organizational structure, 3. Review organizational performance, 4. Review financial management, 5. Review financial reporting, 6. Review policies and procedures,
2	UNY	State	7. Review risk management 1. Review strategic planning, 2. Budgeting review, 3. Review the university's internal reporting, 4. Review financial management, 5. Review financial reporting, 6. Review policies and procedures
3	UAD	Private	Budgeting review, 2. Review the university's internal reporting, 3. Review financial reporting
4	UII	Private	1. Budgeting review, 2. Review organizational performance, 3. Review the university's internal reporting, 4. Review financial management, 5. Review financial reporting, 6. Review policies and procedures

Table 3 shows that UGM, as a state university with more than 20 years of age, has the most types of reviews (7 types) as an activity to ensure that organizational governance is running well. One of the differences

between the review work carried out by UGM and the other three universities is that risk management review work is included. UNY, with 13 years of internal audit function, also has six types of reviews. UII, a private university with more than 20 years of internal audit function, also has six types of reviews, varying from budgeting to policy and procedure reviews. Meanwhile, UAD (private university), whose internal audit function is seven years, only has three types of review work: budgeting, university internal, and financial reporting reviews. These results indicate that the older the internal audit function is, the more and more varied review work types.

Audit Committee Support

The audit committee is an essential component in organizational governance because it acts as a supervisory element of the organization and coordinates with the internal audit function. The research results show that only UGM has an audit committee and supports the activities of the internal audit function. UGM has an audit committee because this university is a state university with legal status. This status requires UGM to have an audit committee element. Meanwhile, UNY, as a state university with public service higher education status, only has elements of a supervisory board, not an audit committee. UII and UAD, as private universities, do not have audit committees.

Availability of Resources

The availability of human resources will support the performance of the internal audit function. The results show that private universities like UAD have 28 auditors, but only 20% or five people become auditors. This is because 80% of the auditors, or 23 auditors, have lecturer status. Lecturer is a functional lecturer position and cannot be classified as an auditor. UNY, as a state university, does not have staff who serve as auditors because the functional position of auditors is not yet available. Support staff in the internal audit function perform audit work and support the overall work of this function. UII is a private university with the most auditors compared to UAD, with 13 people. However, it is still necessary to vary the auditor's background in the legal and technical fields. UGM, as a state university with legal status, has the most auditors compared to UNY, with 16 people. All auditors at UGM have the status of educational staff and serve as functional auditors.

Table 4. Availability of Resources at Internal Audit Fuction

No	Universities	Type of Universities	Auditors	Supporting Staff	Remarks
1	UGM	State	16	1	The status of auditors is educational staff who work as functional auditors. A Supporting staff works as an office secretary and financial administration assistant
2	UNY	State	-	4	There is no staff with functional auditor status because there is no functional auditor position at the university. Supporting staff become auditors, but the position attached is not an auditor.
3	UAD	Private	5	1	UAD has 28 auditors (20% (5 people) as auditors and have the status of educational staff; 80% (23 people) are lecturers who are

No	Universities	Type of Universities	Auditors	Supporting Staff	Remarks
4	UII	Private	13	1	given additional duties as auditors. Supporting staff assists in the secretarial area and supports the internal audit function.

Reporting of the internal audit function report

Reports from the internal audit function are carried out at state and private universities, all of which are given to the Chancellor as the university's highest leader and the auditee. However, what is different is that at a private university, UII, the internal audit report is also submitted to the foundation boards. The internal audit report is in the form of a full report and attached with an executive summary.

Responses to internal audit findings

Based on the research results, management's response to internal audit findings is as follows.

Table 5. Time to Response internal audit findings

No	Universities	Type of Universities	Time Needed to Follow-Up Audit Findings
1	UGM	State	1. 60 days (2 months), 2. 90 days/ (3 months), 3. 180 days (6 months).
2	UNY	State	90 days/ (3 months)
3	UAD	Private	30 days/ (1 months)
4	UII	Private	180 days/ (6 months)

Referring to Table 5, UGM has variations in follow-up time based on the size of the audit findings encountered. The fastest follow-up on audit findings is within 60 days. Meanwhile, the longest audit findings can be responded to and followed up on is 180 days. UAD has the fastest follow-up time, 30 days. For UNY, 90 days is the most effective time for work units to follow up on audit findings. UII takes 180 days to follow up on audit findings. Audit findings that are not followed up immediately because they relate to the system require time to fix first.

Internal Audit Activity

Internal audit charter

The internal audit charter is used to ensure credibility and guidelines for carrying out the work of the internal audit function. UGM, UNY, and UAD already have internal audit charters, while UII is still creating an internal audit charter. The following are the parties who authorize the audit charter.

Table 6. The parties who authorize the audit charter and Document Access

No	Universities	Type of Universities	The parties who authorize	Document Access
1	UGM	State	University Management	Access by request
2	UNY	State	Supervisory Boards	Access by request
3	UAD	Private	Quality Assurance Body	Public cannot access, only for internal purposes
4	UII	Private	Foundation Boards	It will be accessed by request

Table 6 shows variations in parties who ratify the internal audit charter, even though UGM and UNY have state university status and have different parties who ratify it. University leaders ratify the internal audit charter at UGM, while the supervisory board ratifies the internal audit charter at UNY. Private universities also have differences. The Quality Assurance Body is the party that ratifies it at UAD, while the Foundation Management is the party that ratifies the internal audit charter at UII. Access to internal audit charter documents for both UGM, UNY and UII will be provided upon request. Meanwhile, UAD is only for internal university consumption cannot be accessed by the public.

Table 7. Assurance and Consulting Type which are stated on Internal Audit Charter

No	Universities	Type of Universities	Assurance and Consulting Type
1	UGM	State	Financial audit, operational audit, information technology audit, review of financial reports, budgeting, procedures and policies and others, monitoring follow-up to external auditor findings, consultancy
2	UNY	State	Financial audit, operational audit, compliance audit, review of financial reports, budgeting, procedures and policies and others, monitoring follow-up to external auditor findings, consultancy
3	UAD	Private	Financial audit, operational audit, compliance audit, review of financial reports, budgeting, procedures and policies and others, monitoring follow-up to external auditor findings
4	UII	Private	Under process, UII is still completing the audit charter

Table 7 illustrates that financial audits, operational audits, financial statements reviews, budgeting, procedures and policies and others, and monitoring follow-up of external auditor findings have been included in the internal audit charter. For consulting assignments and compliance audits, not all universities have it, especially for private universities.

Audit and Assignment Type

Implementation of audits in the field according to needs and activities can improve higher education governance. The assurance activities that have been carried out in both state and private universities are as follows on Table 8.

Table 8. Assurance Activities

No	Universities	Type of Universities	Assurance Activities
1	UGM	State	Financial Audit, Compliance Audit, Information Technology Audit including electronic data processing, Operational Audit, Review, Consultancy, Special Purpose Audit
2	UNY	State	Financial Audit, Compliance Audit, Operational Audit, Review, Consultancy, Special Purpose Audit, Assisting management for risk management
3	UAD	Private	Financial Audit, Compliance Audit, Operational Audit, Review, Consultancy, Special Purpose Audit, Assisting management for risk management
4	UII	Private	Financial Audit, Compliance Audit, Operational Audit, Consultancy, Special Purpose Audit

UGM, UNY, UII, and UAD run financial audits, operational audits, compliance audits, special purpose audits, and consulting assignments. UII, as a private university, focuses more on financial audit work, compliance audits, operational audits, special purpose audits and consulting. The internal audit function at UGM is the only one that has carried out information technology audits. UNY and UAD are universities that have helped university management carry out work on risk management.

Trends in time spent in audit activities over the last two years and the next two years

Based on the perspectives of the chairman and deputy chairman of the IAF, the time that will be utilised to conduct audits/reviews/consulting in the next two years, UGM, UII and UNY believe that they will reduce time spent in audit activities due to the implementation of risk-based audits and an increased understanding of inherent risks in each work unit. Meanwhile, UAD states that trends in time spent in audit activities will be the same compared to previous years.

Integration with risk management

Internal audit's role in improving higher education governance is associated with risk management. From the point of view of the chairman and deputy chairman of the university's internal supervisory unit in both state and private universities (UGM, UNY, and UAD), audit/review/consulting/other audit assignment work plans are prepared risk-based plans. Only UII believes that planning for audit work/review/consultation/other audit assignments is not prepared on a risk-based plan. The result shows that there are still differences in the implementation of risk-based planning in the university's internal audit function.

Percentage of realized audit plans

Successful integration of risk management by looking at whether the audit plan has been fully realized. The following are the research results regarding the percentage of realization of audit planning.

Table 9. Percentage of realized audit plans

No	Universities	Type of Universities	Percentage of realized audit plans
1	UGM	State	80 % - 90%
2	UNY	State	90% - 100 %
3	UAD	Private	80 % - 90%
4	UII	Private	90% - 100 %

While UGM conducts audit/review/monitoring/consultation activities in the internal audit function, UGM often receives assignments outside of audit plans; the success of realization versus planning is only 80-90%. UNY often gets assignments outside of audit plans so that the success of realization versus planning can reach 90-100%. UAD does not often receive assignments outside of audit plans, but the success of realization versus planning is only 80-90%. UII does not often receive assignments outside of audit plans, so the success of realization versus planning reaches 90 – 100%. The result shows the difference between state and private universities. In implementing the annual audit plan, state universities often get work outside the plan. However, private universities do not often get work outside the planning.

Separation between audit and consultancy

The result shows how the perspective head/deputy of internal audit functions separates assurance (audit, review, monitoring) and consulting (assistance and consulting).

Table 10. Separation between audit and consultancy

No	Universities	Type of Universities	Percentage of assurance assignments	Percentage of consultation assignments
1	UGM	State	80%	20%
2	UNY	State	80%	20%
3	UAD	Private	80%	20%
4	UII	Private	90%	10%

Assignments at UGM, UNY, and UAD have a percentage of assurance assignments of 80% and a percentage of consulting assignments of 20%. UII has different percentages, scoring 90% for assurance and 10% for consulting work. These results show that state and private universities focus more or dominate on assurance work (audit, review and monitoring).

Management Relations with the Functions of the Internal Audit Function

Hierarchical Levels in Organizations

Regarding organizational structure, the internal audit function is equivalent to a director and alongside the Chancellor, college Senate, and advisory board. For the internal audit function, some are in the field section of the quality assurance agency.

Table 11. Hierarchical Levels in Organizations

No	Universities	Type of Universities	Position
1	UGM	State	Equivalent to echelon II or director
2	UNY	State	As an organ alongside the Chancellor, University Senate and Advisory Council
3	UAD	Private	Part of Quality Assurance Body
4	UII	Private	No Response

In 2022, UNY will still be a public service agency state university as of October 20 2022, Government Regulation no. 35 of 2022 concerning Yogyakarta State University Legal Entity State Universities (PTNBH UNY), but implemented as of January 1 2023. UII does not provide an opinion on the hierarchical position of its internal audit function.

Responsibility for the appointment and termination of reviewing the performance of the Head of the Internal Oversight Unit/Head of the Internal Audit Function.

The research results reveal that the Rector is responsible for the appointment and termination and for reviewing the performance of the Head of the Internal Audit Unit/Head of the Internal Audit Function. Private universities also carry out this responsibility, namely the Foundation.

Mutation, Employee Promotion

Movement and promotion of employees in the internal audit function can occur. The result of the research is presented in Table 12.

Table 12. Mutation and Employee Promotion

No	Universities	Type of Universities	Number of Employees in Mutation and Promotion
1	UGM	State	1-2 persons
2	UNY	State	1-2 persons
3	UAD	Private	None
4	UII	Private	None

Based on the result, 1-2 persons in internal audit functions in state universities were promoted to head of section, coordinator, head of finance and accounting. No employees have moved and been promoted to other units.

Internal Audit Function In View of Management

The internal audit function from the perspective of Top Management in Higher Education is shown in Table 13.

Table 13. Internal Audit Function in View of Management

No	Universities	Type of Universities	Role of Internal Audit Fuction
1	UGM	State	As a strategic partner
2	UNY	State	As a unit that ensures accountability and risk
3	UAD	Private	As a unit that ensures accountability and risk
4	UII	Private	As a unit that ensures accountability and risk

Only UGM considers the internal audit function as a strategic partner. In contrast, the internal audit function at UNY, UAD, and UII is considered a unit that ensures accountability and risk at the university.

Approval of the internal audit function budget

Budget approval is carried out by the Chancellor and Deputy Chancellor for Finance for State Universities, but for private universities, it is carried out by the Treasurer of the Foundation. These results indicate differences between state and private universities regarding budget approval for the internal audit function

Audit Planning and Audit Request by Management

The audit planning did not change because the university management requested an audit. These results indicate that audit requests from management do not influence audit planning at state and private universities.

The audit plan is approved by the Audit Committee

The results show that the Audit Committee does not carry out the approval process for audit planning from the internal audit function at both state and private universities. The audit committee only has UGM as a legal entity state university. In 2022, UNY will still have the status of a state university with a public service agency. Meanwhile, UII and UAD are private universities whose audit planning also does not go through an approval process from the Audit Committee.

Internal Audit Serves As “The Three Lines of Defense”

Whether the internal audit function acts as a third line of defense can be shown from the coordination, communication, and collaboration level between internal audit and university management. Table 14 shows the research results.

Table 14. Internal Audit Serves As The Three Lines Of Defense

No	Universities	Type of Universities	Serves as The Three lines of Defense	Frequency of Formal Coordination and Communication	Coordination and Communication Media
1	UGM	State	Reasonably sufficient	3 times a year (every 4 months)	1. In the form of an audit/review report 2. If there is an urgent matter, IAF will meet directly with the university leaders
2	UNY	State	Very sufficient	4 times a year (per quarter)	Coordination meeting with university leaders
3	UAD	Private	Sufficient	4 times a year (per quarter)	Coordination meetings before and after the audit
4	UII	Private	Reasonably sufficient	2 times a year (per semester)	1. Submission of the results of the university budget review 2. Submission of audit results

No	Universities	Type of Universities	Serves as The Three lines of Defense	Frequency of Formal Coordination and Communication	Coordination and Communication Media
					3. Submission of recommendations based on the requested consultation.

The results of the research show that the internal audit function in both state and private universities is sufficient (UAD), reasonably sufficient (UGM and UII), and very sufficient (UNY) to coordinate, communicate, and collaborate with university management to achieve organizational goals. The intensity of the internal audit function to coordinate, communicate, and collaborate with higher education management is carried out four times a year (per quarter) by UNY and UAD, three times a year (every four months) by UGM, and there are only two times a year (per semester) by UII.

The form of coordination and communication is carried out in the form of submitting reports on the results of audits/reviews, or if there is an urgent matter, they will meet directly with the leadership, coordinate before implementation and after the implementation of the audit, or in the form of submitting the results of a review of the college budget and submission of audit results, and submission of the results of the recommendations on the requested consultation.

CONCLUSION

The research results show that internal audit functions at state and private universities have been adequate in terms of dimensions of organizational support. UGM and UNY, as state universities, their existence and role are considered important as an element of organizational governance by the university's top management and external auditors. Likewise, UII and UAD, as private universities, also think that the internal audit function is essential for the organization. However, regarding resource availability, there is still a staff shortage; only UGM has the most internal auditors because the most prolonged age of the internal audit function is more than 20 years. UII, which has the same age, also has the second-largest number of auditors. The longer the internal audit function has been established, the more numerous and varied the number and variety of audit, review and consultation assignments.

Regarding the relationship between management and the internal audit function, UGM only has a position as a strategic partner at IAF. At the same time, at UII, UAD and UNY, it is a unit that ensures accountability and risk. These results indicate that the internal audit function in both public and private universities has adequately promoted improved governance.

Regarding the internal audit function, it can act as a third line of defense, both state universities (UGM and UNY) have carried out adequate coordination, communication and collaboration processes with university management. The communication and coordination process as the third line of defense involves submitting audit or review reports and regular meetings with university leaders twice a year, three times a year and four times a year. However, if there are urgent matters, the internal audit function will meet directly to coordinate and mitigate risks that arise.

This research only evaluates the four universities that are the research sample consisting of two state universities and two private universities because it considers the number of active students of more than 29,000 active students from a total population of 106 private universities and 12 state universities located in the Special Region of Yogyakarta. The results of this research can be improved by increasing the number of research samples. Due to the limited research sample, the results of this research cannot be generalized to all forms of state and private universities in Indonesia.

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