การค้นพบบางอย่างจากการสำรวจการเปิดเผยงบประมาณ: การส่งเสริม
การสร้างความโปร่งใสให้กับสังคมโดยองค์กรตรวจเงินแผ่นดิน

สุทธิ สุนทรานุรักษ์ [1]
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บทคัดย่อ

 องค์กรตรวจเงินแผ่นดิน หรือ สตง. เป็นองค์กรหลักที่มีบทบาทสำคัญในการสร้างความโปร่งใสให้กับสังคมผ่าน
การตรวจสอบภาครัฐ และการต่อต้านคอร์รัปชั่น บทความนี้มุ่งอภิปรายบทบาทของ สตง. และการส่งเสริมการสร้างความ
โปร่งใสให้กับสังคมผ่านการสร้างแบบจำลองทางเศรษฐมิติอย่างง่าย จากการศึกษาข้อมูลการสำรวจการเปิดเผยงบประมาณ
(OBS) ขององค์การความร่วมมือทางด้านงบประมาณระหว่างประเทศ (IBP) พบว่า ประสิทธิภาพของ สตง. สามารถวัดได้จาก
ระดับการเปิดเผยข้อมูลของ สตง. โดยหลักการเปิดเผยข้อมูลดังกล่าวสะท้อนถึงความโปร่งใสของ สตง. ขณะที่ดัชนีภาพลักษณ์
คอร์รัปชั่น (CPI) ขององค์กรเพื่อความโปร่งใสนานาชาติ (TI) แสดงถึงระดับความโปร่งใสของประเทศ อีกทั้ง ผลการศึกษา
พบว่า ระดับการเปิดเผยข้อมูลของ สตง. นั้นมีความสัมพันธ์กับดัชนีภาพลักษณ์คอร์รัปชั่น (CPI) โดยดัชนีภาพลักษณ์คอร์รัปชั่น
(CPI) ส่งผลทางบวกต่อระดับการเปิดเผยข้อมูลของ สตง. นอกจากนี้ ระดับการเปิดเผยข้อมูลของ สตง. ก็มีความสัมพันธ์
ทางบวกกับระดับความมีประสิทธิภาพในด้านการติดตามงบประมาณของรัฐสภา (LEG) และระดับการมีส่วนร่วมของภาค
ประชาชนในกระบวนการงบประมาณ (PP) ยิ่งไปกว่านั้น ผลการศึกษา ยังแสดงให้เห็นอีกว่า ระดับการเปิดเผยข้อมูลของ สตง.
ส่งผลทางบวกกับ ดัชนีภาพลักษณ์คอร์รัปชั่น (CPI) ในลักษณะความสัมพันธ์แบบสมเหตุสมผล รวมทั้งยังสนับสนุนหลักการ
ตามปฏิญญามอสโก 2562 ที่ว่า สตง. สามารถยกระดับคุณค่าของการตรวจเงินแผ่นดินโดยการทำหน้าที่ให้คำปรึกษาบน
พื้นฐานของการตรวจสอบ ที่มุ่งเน้นประเด็นสำคัญเชิงยุทธศาสตร์ต่อรัฐสภา รัฐบาล และการบริหารจัดการภาครัฐ

คำสำคัญ : องค์กรตรวจเงินแผ่นดิน การสำรวจการเปิดเผยงบประมาณ ปฏิญญามอสโก 2562

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Some Findings from Open Budget Survey: Promoting Transparency for Supreme Audit Institution

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Abstracts

The Supreme Audit Institution or SAI is the principal agency that plays a leading role in promoting transparency through government auditing. Likewise, it could support to fight against corruption. This paper discussed the role of SAIs and promoting transparency that is explained by using a basic econometric model. The authors investigated the Open Budget Survey (OBS), which is developed by the International Budget Partnership (IBP). The survey showed that the SAIs capacity could measure with an openness degree of SAIs information. The concept of information disclosure reflects the transparency of SAIs around the world. In the meantime, the Corruption Perceptions Index (CPI) represents the transparency degree for each country in which Transparency International (TI) publishes CPI annually. The authors found that an openness degree of SAIs information related to CPI. The CPI affected positively to SAIs' openness. Additionally, the multiple regression model still shows that the SAIs' openness degree had a positive relationship between public participation in the budget process and legislative oversight. Meanwhile, the econometric model found that SAIs' openness affected positively to CPI in which reflected causality relationship. These findings strongly support the statement of the Moscow Declaration 2019 that the supreme audit institution can enhance the value of public auditing by extending the provision of audit-based advice on important and strategic issues of parliament, government, and public administration.

Keywords : Supreme Audit Institution, Open Budget Survey, Moscow Declaration 2019

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1. Introduction

Open Budget Survey (OBS) 2019 is worldwide collaborative research in 117 countries conducted by the International Budget Partnership (IBP). This survey aims mainly to measure country transparency through evaluation of the budget process in three important areas: transparency in the revelation of budget information, public participation in the budget process, and the role of the oversight bodies.

Focus on the role of oversight institutions, Supreme Audit Institutions or SAIs play a leading role in promoting transparency through government auditing. SAIs are known as a government external auditor. Their role, besides verifying the accuracy and reliability of government account, also audits whether budget spending is in compliance with the law, as well as assessing efficiency and effectiveness of such spending (International Budget Partnership, n.d. b). Once considering the budget process, which consists of the budget formulation, budget approval, budget execution and budget oversight, SAIs are main part of budget oversight along with legislative oversight. To oversee the budget, SAIs focus on the audit in the matter of frequent or extraordinary spending, including the budget extension, budget structure, budget classification, budget execution, and reporting the results of the budget (EUROSAI, n.d.). At the year-end, SAIs take responsibility annually to report the audit finding from budget oversight to the legislature (International Budget Partnership, n.d. b). However, the Lima Declaration 1977 mentioned that the credibility of SAIs performance is depended on independence, accountability and transparency of them (INTOSAI, n.d. a).

Transparency is one of the important elements of good governance which can contribute to fight corruption, improve governance and promote accountability (INTOSAI, n.d. b). Moreover, transparency initiatives involve promoting information disclosure and access to information for a wide range of government processes such as budget formulation. To advance principles of transparency and accountability for SAIs, the INTOSAI established "INTOSAI P-20 Principles of Transparency and Accountability." It is composed of nine core principles on how to promote accountability and transparency in the work of SAIs (INTOSAI, n.d. b). Meanwhile, the Moscow Declaration 2019 proclaimed that the future directions for public auditing depend on the SAIs' commitment to promote and foster the efficiency, accountability, effectiveness and transparency in public administration by strengthening Supreme Audit Institutions (INTOSAI, 2019).

Under the question that what factors influence the strength of SAIs in promoting transparency, thus this paper aims to explore the relationship between the role of SAIs in promoting transparency and the various factors relevant encouraging transparency e.g. Corruption Perceptions Index (CPI), Public Participation in the Budget Process score (PP), Legislative Oversight score (LEG), and Press Freedom Index (PFI) through applying the Multiple Linear Regression (MLR). This paper is organized into five parts. The first part introduces the role of SAIs and promoting transparency. The second part describes the materials and the methods applied to conduct this paper. Then, the results of MLR are presented in the third part. Furthermore, such results are discussed in the fourth part. Finally, the last part is the conclusion and the recommendations for further steps.

2. Materials and Methods

This part started with describing the meaning of each variable and pointed out the methods used in this study.

2.1 Materials

This research is focusing on studying what factors affect the SAIs' role in promoting transparency. Thus, the data for this study were obtained from three sources: Open Budget Survey (OBS) 2019, Corruption Perceptions Index (CPI) 2019, and World Press Freedom Index (PFI) 2019. After data assessing from such three sources, the five variables were opted to analyze as follows. Three variables were from OBS – supreme audit institution oversight score (SAI), legislative oversight score (LEG) and public participation in the budget process score (PP). Two variables were CPI score and PFI score.

2.1.1 SAI score, LEG score, and PP score

SAI score and LEG score represent having the mandate and materials in oversight the government of SAIs and Legislature (International Budget Partnership, n.d. b). In other words, OBS attempts to assess how well two institutions perform as oversight bodies. Meanwhile, PP score, OBS emphasizes the public engagement in all phases of the budget process, including access budget information source. For the scale of SAI, LEG, and PP score, OBS set 0 to 100 for weak to adequate level as seen in Table 1.

Table 1   A scale of SAI score, LEG score, PP score, PFI score, and CPI score (International Budget Partnership, n.d. b; Transparency International, 2020; Reporters Without Borders, n.d.)

SAI score, LEG score, and PP score		PFI score	
Weak	0 - 40	Good Situation	0 - 15
Limited	41 - 60	Satisfactory Situation	15.01 - 25
Adequate	61 - 100	Problematic Situation	25.01 - 35
		Difficult Situation	35.01 - 55
		Very Serious Situation	55.01 - 100
CPI score			
Highly Corruption – Very Clean		0 - 100	

2.1.2 CPI score

CPI score is the degree of public sector corruption across 180 countries prepared by Transparency International (TI) (Transparency International, 2020). This index also reflects the transparency degree of each country. For CPI score 2019, the scale used is 0 to 100 for highly corruption to very clean as provided in Table 1.

2.1.3 PFI score

PFI score is the level of journalists' freedom or media freedom to the public the information, news, ideas, comment, and opinion in 180 countries issued by Reporters Without Borders (RSF) (Reporters Without Borders, n.d.). Table 1 demonstrates the PFI score 2019's scale, 0 to 100 for good situation to very serious situation.

2.2 Methods

The data analytic was performed applying the Excel program and SPSS software. The steps to analyze data were as follows:

1. Matching the raw data from three sources (OBS – 117 countries, CPI – 180 countries, and PFI – 180 countries), any countries having complete data in five variables (SAI score, LEG score, PP score, CPI score,

and PFI score) were kept, while some countries which in data were unavailable in some variables were removed. Finally, the available data for this study remained 111 countries.

2. Forming two models, the first model set SAI score to be a predicted variable to find what factors impact on SAI score. Meanwhile, the second model considered whatever variables had a relationship with CPI variable. Thus, it defined CPI score as a predicted variable.

For establishing two regression models, the best subset variables were selected through the stepwise technique. The correlation coefficient between the predictor variables and the predicted variable was determined beneath the hypothesis for the p-value of the slopes tested according to Equation as below (Wooldridge, 2013).

$$H_0: r = 0 \tag{1}$$

(There is no relationship); Reject H_0 if p-value < 0.05

$$H_1: r \neq 0 \tag{2}$$

(There is a relationship)

3. Evaluating the goodness of fit for each model by F value and R^2, as well as examining the multicollinearity among the predictor variables by considering the variance inflation factor (VIF) (Wooldridge, 2013).

3. Results

For this part, it showed the results of the study regarding which factors influence the strength of SAIs in promoting transparency as well as the factors which impact on the transparency of country.

3.1 The basic descriptive statistics

With regard to the basic statistics in Table 2, the maximum values of SAI were 100 points, while the minimum values were 0. The total score of SAI (n = 111 countries) averaged 63.85 points (SD = 22.89). For LEG, it showed the highest values of 95 points and the lowest values of 0. Its average score was 49.68 points (SD = 20.94).

Table 2   Basic Descriptive Statistics of Research Variables

Variables	N	Mean	Std. Deviation	Min	Max
SAI	111	63.85	22.89	0	100
PP	111	14.22	12.69	0	61
LEG	111	49.68	20.94	0	95
CPI	111	39.70	17.16	9	87
PFI	111	35.69	14.52	7.82	83.4

Considering the mean of CPI and PFI score, it demonstrated closely values of 39.70 and 35.69. The standard deviations of them were 17.16 and 14.52, respectively. CPI had a peak value at 87 points and

the bottom value was 9 points. For PFI, the highest and lowest values were 83.4 and 7.82 points. Meanwhile, the average of PP score was 14.22 points (SD=12.69). PP had a range between 0 to 61 points.

3.2 The factors which influence the strength of SAIs in promoting transparency

Considering the best subset, it shows that three predictor variables (LEG, CPI, and PP) significantly contributed to SAI (F= 37.691, p-value < 0.01). Due to the stepwise technique, one variable (PFI) was removed with the high p-value of t-statistic for the fit of the model. Based on the R2 value, LEG, CPI, and PP explained 51.4% of the variance in SAI. This means that the model was a quite strong positive relationship among the four variables. The regression equation can be formed as follows.

$$SAI = 21.659 + 0.472LEG + 0.336CPI + 0.379PP \qquad (3)$$

As Equation 3, it shows that the strength level of the SAIs' role in promoting transparency was estimated to increase by 0.472 for each one value arising in the well-legislative oversight level, to rise by 0.336 for each one value increase in the degree of country's transparency (referred to here as CPI score), and to accrue by 0.379 for each one value increase in the opportunities for public engagement in the budget process. However, once LEG, CPI, and PP score were zero, SAI score was predicted to 21.659.

Regarding the multicollinearity among the variables, Table 3 illustrates that the VIF of all three predictor variables were less than 10. This means that there is no relationship among three variables.

Table 3 Multiple Relations Coefficients of Equation 3

Model[a]	Unstandardized Coefficients		t	Collinearity Statistics	
	B	Std. Error		Tolerance	VIF
(Constant)	21.659	4.565	4.744**		
LEG	0.472	0.089	5.302**	0.685	1.460
CPI	0.336	0.101	3.317**	0.787	1.271
PP	0.379	0.142	2.674**	0.738	1.356

a. Dependent Variable: SAI, R Square = 0.514, SEE = 16.184,

F = 37.691, Sig. of F = 0.000, **P < 0.01, N = 111

3.3 The factors which impact on transparency of country

By the stepwise method, it shows that PF and SAI significantly related to CPI (F = 41.678, p-value < 0.01). The model would be fitted when two variables (PP and LEG) that had p-value > 0.05 were rejected. The strength of the regression model was checked by R2 value (43.6%). It showed a quite not strong relationship among three variables because PF and SAI explained 43.6% of the variance in CPI and 56.4% of the variability in CPI was depended on other factors. The adjusted regression equation can be shown as below.

$$CPI = 43.220 - 0.538PFI + 0.245SAI \qquad (4)$$

From Equation 4, CPI score or country's transparency level was predicted to decrease by 0.538 for each one value increase in media freedom. Oppositely, the country's transparency degree was estimated

to rise by 0.245 for each one increase in SAIs' strength in promoting transparency. If PFI and SAI score were not available, the CPI score was expected to 43.220.

For the multicollinearity test, it found that there are no multiple correlations among two predictor variables because the VIF of such predictor variables in Table 4 were less than 10.

Table 4   Multiple Relations Coefficients of Equation 4

Model[a]	Unstandardized Coefficients		t	Collinearity Statistics	
	B	Std. Error		Tolerance	VIF
(Constant)	43.220	6.108	7.076**		
PFI	-0.538	0.094	-5.748**	0.834	1.199
SAI	0.245	0.059	4.136**	0.834	1.199

a. Dependent Variable: CPI, R Square = 0.436, SEE = 13.008,

F = 41.678, Sig. of F = 0.000, **P < 0.01, N = 111

4. Discussion

This study confirmed the important role of SAI as another principal agency to promote transparency and fight against corruption. As a pillar of integrity, auditors could play the detective role to identify the corrupt practices and fraud indicators (Dye & Stapenhurst, 1998). However, the authors attempted to prove these roles by using a basic econometric model. The findings obtained could explain the role of SAIs and promoting transparency based on empirical evidence.

In addition, the results proved key success factors related to the role of SAIs and promoting transparency. These factors are legislative oversight and public participation in the budgetary procedure. Interestingly, this study also supported the Moscow Declaration 2019 which represented the development framework of modern SAIs in the future.

4.1 The Role of SAIs and Promoting Country Transparency

Referring to CPI score, it reflects the level transparency of country. This score is measured based on the concept of "how corrupt a country's public sector is perceived to be" (Transparency International, n.d.). Meanwhile, for SAI score, OBS has attempted to assess how great SAIs conduct auditing for promoting public transparency by focusing on the independence of SAIs' head and adequate funding of SAIs, as well as reviewing the SAIs' audit process by the external institution (International Budget Partnership, n.d. b). When preliminary considering in the relationship between the strength of SAIs' role in promoting transparency and the Corruption Perceptions Index, it found that both have a positive correlation in two ways as seen in Equation 3 and 4. In other words, SAIs' strength degree impacts the level of country transparency; on the other hand, the transparency degree has affected the level of SAIs' strength as well. This implies that once the SAI is potential, the country is more transparency. Reversely, the high level of country transparency reflects the strength of SAIs' role in promoting transparency at a high level. These results are consistent with (Mark & Reiner, 2010) who proved the fact that external public audit in Switzerland can improve policy transparency and reduce wasteful spending.

However, both equations still have a limitation in the interpretation of variables' relationship because the R-square values of both stay in the moderate level (40%-50%). This means that the relationship between the variables is not a quite strong correlation. There are still other predictor variables that can explain the

variance in the predicted variable. It has noticed that in some countries, the relationships between SAI score and CPI scores do not correspond to the MLR's results. For example, South Africa, SAI score is at the top as 100 points, but its CPI score is quite not good (44 points). Likewise, Albania, its score of the strength of SAIs stay in 72 points; however, the country transparency score is at the low level (35 points).

With regard to the conflict results above, it seems likely that having the gaps are existing between the relationship of country transparency and the strength of SAIs in oversight. Nevertheless, refer to the key findings of OBS, it found that the gaps in oversight by SAIs are because of limitation of revealing the SAIs' information; such reason results in the lack of transparency in the budgetary procedure (International Budget Partnership, n.d. a). OBS indicates that "most SAIs have legal independence but other shortcomings prevent findings in audit reports from being using to correct the issues identified", resulting in no response and follow-up to the audit recommendations (International Budget Partnership, n.d. a, p.4, n.d. b). Consequently, it can see that the strength of SAIs' role in promoting transparency, besides relating to the independence, enough funding, and efficient audit systems, also refers to the adequate disclosing the audit finds to the public.

4.2 Key success factors relating to the Role of SAIs and Transparency

Apart from CPI score, other factors have impacted the SAI score that is the adequate level of legislative oversight (LEG score) and the level of public engagement in the budget process (PP score). These factors influence SAI score in the positive relationship as same as CPI score. Nevertheless, both factors do not affect the CPI. For the level of media freedom (PFI score), it does not correlate with the SAI score but influences the level of country transparency. In fact, if the situation of media freedom is good, country transparency is high.

(a) Legislative oversight

Considering the budget cycle, the legislature has the roles in debate, amendment, and approval of the budget before the executive drafts the budget proposal. In addition, the mandate covers the monitoring budget implementation as well as review audit findings. In the parliamentary system, the legislature is known as the Public Account Committee (PAC). To enhance parliament's capacity, PAC is one of the specialized budget committees. However, the name of the PAC differs in each country (Irawan, 2014).

The PAC can support the SAI's role in all models (the Parliamentarian or Westminster model, the Board or Collegiate model, the Judicial or Napoleonic model, and the Hybrid model). For example, in Australia, its SAI is formed in the type of the parliamentarian model. To examine the accounts of the receipts and expenditure of the Commonwealth, as well as all reports of the Auditor-General, it has appointed a Joint Committee of Public Accounts and Audit (JCPAA), consisting of 16 members (Six of whom shall be appointed by the Senate and ten of whom shall be appointed by the House of Representatives. Each member shall hold office during the pleasure of the House by which he or she was). During the examination, the Committee must approve or reject any nomination to fill the positions of Auditor-General and Independent Auditor. Finally, the JCPAA's report is forwarded to both Houses of the Parliament (Parliament of Australia, n.d.).

For Indonesia, the SAI type is the collegiate model. The PAC of Indonesia has 9 members who are the same members of the Parliament Commissions. The role of PAC is to assess the audit reports, report the result to the Commissions in the Parliament, follow-up Commissions resolution on the audit

findings, give the supplement to SAI in respect of the annual audit affair plan, and audit obstruction, including the presentation and quality of reports (Irawan, 2014).

In Slovenia, SAI is established in the type of judicial model. The Court of Audit of Slovenia is required to propose its reports to the Commission for Public Finance Control. The Commission for Public Finance Control consists of 13 members who come from various deputy groups. The commission is responsible for monitoring the implementation of public funds and financial plans, assessing the purpose and efficiency of expenditure, and checking the accuracy of the government financial statements based on the Court of Audit reports. Eventually, the commission is obliged to forward their report to the National Assembly (National Assembly of the Republic of Slovenia, n.d.).

In the United Kingdom, SAI has performed in the type of hybrid model. It is the first country that adopts the PAC. The Committee of Public Accounts is appointed by the House of Commons and comprises 15 members. PAC takes responsibility to examine the value of money of public projects, programs and service delivery by concentrating on the economy, efficiency and effectiveness of public expenditure through the work of the National Audit Office (UK Parliament, n.d.).

(b) Public Participation in the budgetary procedure

For public participation in the budgetary procedure, it might be implied to citizen engagement in public administration. To push on the concept of participation, SAIs are able to open the channels for people engagement with SAIs' auditing to enhance the promoting transparency. For example, in the Philippines, the Commission on Audit (COA) has created the program as called the Citizen Participatory Audit (CPA). This program purposes to train the people to be citizen auditors which will work together with COA audit team (Tan, 2019). Meanwhile, in South Korea, Board of Audit and Inspection of Korea (BAI) extents its collaboration between SAI and the citizen through establishing the center of Audit Request for Public Interest (ARPI) and the center of Citizen Audit Request (CAR), as well as Civil Petition & Complaint Centers (Kim, 2015).

As the results found above, public participation in the budgetary procedure affected the potential of SAI. This finding coincided with the study of Gustavson and Sundström which explained good auditing consisting of three principles: independence, professionalism, and recognizing the people. In the case of public participation and SAI, SAI can open public participation channel for government auditing. For example, complaint letters mechanism, the public hearing for the annual audit plan, and preparing follow-up stage for the citizen (Gustavson & Sundström, 2016).

4.3 The Role of SAIs in Promoting Transparency and following the Moscow Declaration 2019

This study confirmed that SAIs reinforce transparency through well conducting the public audit, including the sufficient disclosure of the audit findings to the public. These results further support the statements of the Moscow Declaration in the matter of the awareness of "Promoting and fostering the efficiency, accountability, effectiveness and transparency in public administration by strengthening Supreme Audit Institutions" (INTOSAI, 2019, p.2). Similarly, these results are consistent with the outcome of OBS 2019 that the role of SAIs as a public oversight function can enhance transparency and ensure budget implemented pursuant to the objectives (International Budget Partnership, n.d. b). In promoting transparency, SAIs should concentrate on "the SAI's timely, reliable, clear and relevant public reporting on its status, mandate, strategy, activities, financial management, operations and performance", including disclosure of audit finding and promoting the public access the SAIs' information (INTOSAI, n.d. b,

p.5). However, to enhance SAI's role for making an impact on public administration accountability and transparency, the Moscow Declaration, 2019 requires SAIs to develop both their performance and the auditors (INTOSAI, 2019). For the development of SAIs' performance, it emphasizes in respect of being an innovative organization, acting as a risk pointer in overview public sector, and proposing the audit findings linking with SDG goals and the national strategy. For auditors' capacity, it is improved by increase in the knowledge of Artificial Intelligence (AI) and working together with the stakeholders.

5. Conclusion

Some findings from OBS were that transparent budgetary procedure is essential for monitoring spending and public project outcomes. It is also recognized as a powerful tool to fight against corruption and help to achieve the Sustainable Development Goals. The purpose of this paper is to study the relationship between the role of SAIs and promote transparency through a basic econometric model. The results of this study indicate that the openness of audit finding refers to the strength of SAIs in promoting transparency and the key factors that have a positive impact to SAIs' openness are the corruption perceptions index (CPI), the public participation in the budget process (PP), and the legislative oversight (LEG). However, the level of SAIs' openness and media freedom affect the country transparency degree. It can be stated that SAIs have detective role to identify fraud indicators and curb corruption by means of improving transparency in the public management system.

Finally, to enhance SAIs' role for promoting transparency in public administration according to INTOSAI-P20 and Moscow Declaration 2019, the authors recommend that SAIs, as a national integrity pillar, should enhance public auditing value by extending the provision of audit-based advice on important and strategic issues to parliament, government and public administration. Furthermore, SAIs should promote the principle of availability and openness of data by reporting publicly on overall audit outcomes, and encourage the auditors to employ data analytics and artificial intelligence tools to enhance innovation. Additionally, SAIs should establish productive interaction with auditees and relevant institutions. They should maintain a strong relationship with relevant parliamentary committees to help them better understand the audit reports and conclusions to take appropriate action. Transparency will be enhanced if the audit work and related information provided are not obsolete. The linkages with other stakeholders and other pillars of integrity are essential.

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