Comparative Studies in Government Auditing

Kiyoshi Yamamoto

1. Introduction

The functions of auditing have been demonstrated in the different perspectives from their backgrounds. In economics, auditing is treated as an institution which makes people or organisation report truely and prevents them reporting falsely(Antle,1982 ; Baron and Besanko,1984). On the other hand, accounting separates auditing into two types, internal auditing and external auditing. Internal auditors detect errors and failures and make recommendations for improvement, while exter-nal auditors certify the financial statements. Further, in politics and public administrations, it is considered the last stage of the budget cycle to evaluate the government activities and an information provider for connecting the next stage to budgeting cycle.

Government auditing really implements the above all functions as described in the INTOSAI's Standards. Audit activities that consist of financial audits and performance audits, can be classified by functions into the direct control function and the indirect control one, namely, providing information. The former functions are to check and examine

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the government activities, and recommend improvements in public resource management. The latter are to certify the financial statements of government agencies, and to evaluate the programmes or policies and report to parliament. With respect to this comprehensiveness and independence, previous studies have limitations. Also the approach based on agency theory is not appropriate, because government auditor acts independently and receives no directions from outside as in the case of principal–agency relationship. The relation of SAI with parliament and government needs to be rather considered client–clientee. Few authors[1] demonstrate why SAIs make effort differently about the focused functions, despite commonly orienting to performance auditing and program evaluation.

Therefore, from the perspective of client–clientee relationships, we show that the SAI's behaviour promoting the social welfare, which is caused by the direct and the indirect functions, makes the differences in functions among the SAIs. Section 2 indicates the relation between government auditing and public value. It demonstrates that public value is ensured by some institutions including the SAI. Section 3 shows the two effects produced from the two functions. A simple utility model is presented in Section 4. The model analyses the burden sharing and the focused efforts in the SAI in Sections 5 and 6 respectively. Lastly the conclusions and the needs for future research are mentioned in Section 7.

2. Government auditing and public value

Government aims to increase social welfare by promoting public value. As Hood(1991) indicated, public value consists of three elements :

efficiency(σ), equity(θ), and trust/stability(λ). Since public accountability in government activities is a key post–measure to ensure the value[2], government auditing for improving the public accountability has an important position in the whole ensuring system(see Figure 1).

Figure 1. Ensuring and Control System in Government
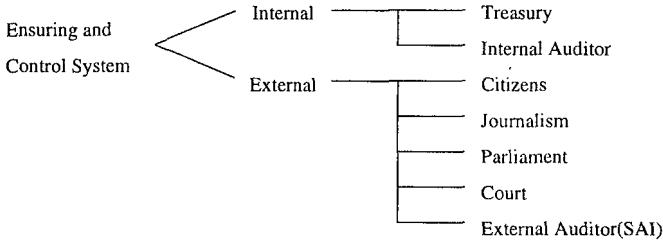
Corresponding to these elements, in fact, government auditing is now implemented in terms of 3 Es(Economy, Efficiency, and Effectiveness), compliance, and system security/stability respectively.

3. Effects of government auditing

SAI has two main clients within government system, government and parliament. Therefore responses by SAI have two phases. The first is the D–effect focusing on direct control such as detecting the failures and recommendation for improvement in the management of public resources against government agencies. The second is the I–effect focusing on the information to assist Parliament in determining governmental accountability, budgeting and accounting(see Figure 2). In other words, the D–effect is a self–determined type that is produced through the SAI's direct activity, while the I–effect is others–dependent and an in direct one that is produced through using the report (information) by the SAI.

SAI has to adjust both effects, because the needs of each client are not always met by limitation in auditing resources. This dual client nature impacts on SAI's behaviour, even though SAI is perfectly independent of parliament and government.

Figure 2. D-effect(D) and I-effect(I)

External Environment
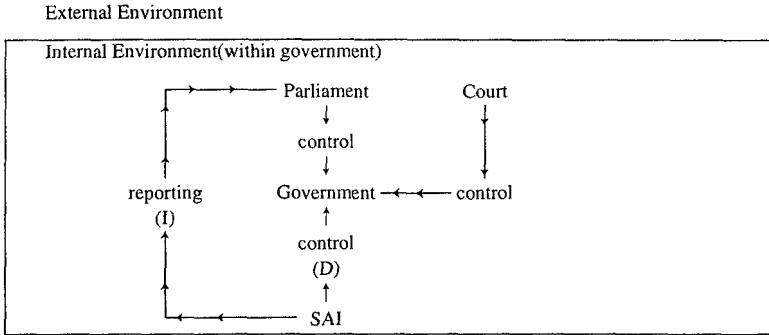
4. Utility of government auditing

Principal utilitues of government and parliament are, as shown in Figure 2, caused by the D−effect and the I−effect respectively. However, secondary utilities are caused in response to each client's need, I−effect to government and D−effect to parliament. The utilities of the two clients and the SAI are, therefore, determined by the SAI's effort level toward the D−effect and I−effect. In addition, we consider the probability of SAI's biased behaviour that the SAI would pay more regard to one client than the other.

Now if we neglect the public as a client, the main clients' utilities by government auditing Us and SAI's utility Ua are given by the following functions :

$$Us = fg[D, I] + fc[D, I] \qquad (1)$$

$$Ua = U(fg,fc) = U(fg) + qU(fc) - U(Ca) \quad (2)$$

where D denotes the D–effect and I the I–effect ; fg and fc mean the utility function of government, parliament respectively ; q indicates the weighting parameter of parliament against the government's utility ; Ca shows the cost function of SAI. Thus an SAI makes a decison on its activity by the two factors : burden sharing in ensuring the public value, and effort vector to which client's need should be respected.

5. Comparison in terms of burden sharing

When we consider a SAI's institutional position in the government system, nationality, and contents of the three elements of public value, these elements on which the SAI burdens, are determined by the following factors respectively :

(1)efficiency ; the more dominant pre–control is over post–control or the lower the consciousness of the taxpayers, the less an SAI burdens.

(2)equity ; the larger the spectrum of judicial activities is the smaller an SAI's burden becomes.

(3)trust/stability ; the more an SAI focuses on system auditing or the higher people's interest in risk is the more it burdens.

According to the above conditions, the states of SAIs in the OECD's main five countries are indicated as Figure 3.

We can see that the SAIs in these countries are different in sharing the three elements. That is, SAI in the USA has a small part of ensuring equity because the Court plays an active role including the government activities. The role of UK's SAI is, on the whole, similar to the USA's ow-

ing to the same Anglo–Saxon. On the other hand, in France, equity element is a major part since the SAI has a character of court for government accounting. Also the German's SAI resembles Japan's in role because of their independence. The difference in efficiency between the two SAIs is caused by the variation in public interest of public money.

Figure 3. Sharing of public value

Country	Efficiency	Equity	Trust/Stable
USA	H	L	M
UK	H	L~M	L~M
Germany	H	M~H	L
France	L	H	M
Japan	M	M~H	L

note ; L,M,and H indicate the sharing of SAI is low, medium, and high respectively

6. Comparison with which effect is respected

It is reasonable that an SAI also has a preference for increasing its utility by providing more useful service to the clients. parliament and government are major clients. Hence, if we assume an SAI would increase its utility given the institutional conditions, more respected client between the two is decided upon the SAI's institutional position and the intensity of need of each client.

As to the former factor, USA's SAI, General Accounting Office(GAO), which is affiliated to the Congress would firstly respect the Congress, so the GAO focuses on the I–effect that Congress prefers. Actually the majority of GAO's works are implementation according to the requests from Congress[3]. On the other hand, French SAI, Cour des comptes,whose form is a court type, would control the government, therefore, fundamentally focuses on the D–effect. German SAI, Bundesrechnungs–

hof, and Japanese SAI, Board of Audit, whose types are independent, are not uniquely decided on this first factor. Although UK's SAI, National Audit Office is partly affiliated to Parliament because of the Comptroller and Auditor General (C&AG) belonging to the House of Commons, it is substantially independent of both the parliament and the government.

In these countries, the latter factor is critical. The SAI considers the intensity of needs for the D-effect and the I-effect that both of the parliament and the government have. As demonstrated before, for a client, its utility is produced through the use of findings by auditing. So the intensity of the client $k(k=g$ for Government, $k=c$ for Parliament) for the two effects, a_k for the D-effect, b_k for the I-effect, are calculated as follows.

If the marginal value of each effect denotes $MVDk, MVIk$, and the probability of its practical use for decison making, $P(D)k$, $P(I)k$, then ak, bk are calculated as $MVDk$ multiplied by $P(D)k$ for the D-effect and $MVIk$ multiplied by $P(I)k$ for the I-effect respectively. Here it is worth noting that a_g exceeds b_g and b_c exceeds a_c because the government prefers the D-effect to the I-effect while the parliament's preference is the opposite. Therefore, if the difference between the intensity of the D-effect and the I-effect for the government is larger than the one for parliament, namely the former surplus $(a_g - b_g)$ exceeds the latter surplus $(b_c - a_c)$, it focuses on more the D-effect even though being perfectly independent.

The reason is that in this case paying regard to the D-effect for the SAI increases its utility (see Appendix). Among these countries, Japan corresponds to the case ; one major political party, the Liberal Democratic Party(LDP), had held power under the parliamentary system for a long time, so parliamentary power is still lower and its need of the I-effect for controlling the cabinet government. In contrast, the UK has the two

party system of the Conservative Party and the Labour Party, hence power change often occurs despite the role of direct control over the government. The repetitive changes by elections, which are fairly strong to the government, take some burden of the political control.

Parliamentary power and its information need for ministerial responsibility is thus more intensive than the Japanese parliament. The need intensity of the I– effect is also strong because of its high marginal value, high probability of use for the parliament. This leads to the dominance of the I–effect, according to our model. NAO in fact keeps in close relation with the Public Accounts Committee(PAC) of the parliament. However, in Germany the power of parliament and government is nearly balanced. Besides the SAI in Germany has a mandate to advise[4] the government through the budgeting process. These elements make the SAI's focus balancing the D–effect for government with the I–effect for parliament. Now the dominant functions of SAIs in the five countries are indicated as shown in Figure 4, by identifying the focused client's need [5].

Figure 4. Focused effect by country

Priority	Country
D > I	France
↑	Japan
D ~ I	Germany
↓	UK
D < I	USA

note ; D > I, D~I, and D < I denote the dominance of the D–effect, balancing between the D–effect and the I–effect, and dominance of the I–effect respectively

7. Conclusions and future research

In this paper, we have considered SAI's activities a subsystem ensuring / controlling the public value whose elements consists of efficiency, equity, and trust / stability. From this perspective, it has been indicated that the share burden of the three elements by the SAI is determined by the intensity and   responsibility of other ensuring susbsystems, and its nationality of political awareness. Especially, as to the equity element, the SAI in the USA bears a light burden because of the active role of the Court, whereas the SAI in France bears a heavy burden owing to the character of the court for government accounting.

Also we have separated the SAI's activities into two efforts, the effort for the D–effect controlling/recommending to the government agencies directly, and the effort for the I–effect reporting the findings to the parliament. Then it has been shown the focused effort by the SAI is determined upon its institutional position in the government system, the power balance between parliament and government, and the both clients' intensity of needs for auditing. The results give the following characteristics of efforts by the SAI in the five countries :

1) GAO focuses on the I–effect, because it is affiliated to the Congress prefering the I–effect to the D–effect,

2) French SAI has a responsibility for controlling the government accounting and public finance, therefore focuses on the D–effect.

On the other hand, as to the SAIs in the UK, German and Japan which are independent types,

3) NAO prioritises the I–effect, since controlling the government is partly made through the power change by the two competing parties and NAO

keeps the close relationship with the PAC in the Parliament.

4) The SAI in Japan made more effort for the D–effect in the same parliamentary system as the UK, though its effort is now more focused in the I–effect. The reason is the ruling party had been stronger in power than parliament.

5) German's SAI takes the middle position between the UK and Japan in the distribution to the two efforts. It seems to be caused by the unique function advising the government in keeping its independence of government and the parliament.

This paper is a preliminary study as to the some strong assumptions about the clients' preference of the two effects and the behaviour of the SAI. Significant implications may be gained from the work to treat the marginal value by auditing and the probability of practical use for a client as endogenous variables of an SAI's effort, not exogenous ones as assumed in this paper. Also additional work is needed on the behaviour by the SAI in the political arena, because its activities may be influenced by the government and the parliament even though independence of both clients in the constitution such as in Germany and Japan.

Expressly, further research on the I–effect that the parliament indirectly controls the government by using audit findings is merited by the contribution to our understanding of SAI's specific position, which is placed at the equilibrium of the two powers, parliment and government.

Note

1) Schwartz(1991) examined the differences among the SAIs in terms of their systems of governments.

2) Tirole(1994) views the government as a distribution of control rights. According to

him, division of control rights, existence of media and independent judges can be considered an institution to prevent abuse by government officials.

3) Havens(1990) indicated that congressional requests accounted for up to 80% of all staff efforts.

4) Section 88 of Federal Budget Code states that on the basis of audit findings, the Federal Court of Audit may advise the parliament, the government and   individual ministries.

5) This model has focued on the strategic level in the political arena which   consists of the SAI's two main clients, government and parliament. However, when we expand our scope to the operational/management level, the new public management(NPM) which is a market–based model of public service, has a significant impact on the SAI's activities. Since NPM treats government and citizens as   providers/suppliers and customers/consumers respectively, citizens have a direct relation with government by skipping parliament. An internal market is made up and market mechanism works on behalf of the parlimentary control over government. Therefore, at the operational/ management level, as the more NPM develops, SAI's role in direct control over govern- ment and in assisting parliament decreases. In contrast, the traditional role that SAI verifies the information of the auditee as an independent auditor is revived. This role produces the I–effect through the another channel and contributes to the citizen's decision making on the   public services as a customer. These influence by NPM may shift the SAI's effort focus to the another element of the I–effect for the public, as shown in the case of League Table made by the Local Audit Commission in the UK.

Appendix

From the equation (2), we have

$$Ua = U(fg) + qU(fc) - U(Ca) \qquad (A\ 1)$$

When the client's value function is separated with the D–effect and the I–effect, each value function is given by

$$fg = Dg(e_1) + Ig(e_2) \qquad (A\ 2)$$

$$fc = Dc(e_1) + Ic(e_2) \qquad (A\ 3)$$

where e_1, e_2 are the SAI's effort levels for the D–efect and the I–effect respectively.

In order to simplify, assuming that the value function, utility function, and cost function are linear. We can immediately show the SAI's utility function :

$$Ua=(a_g e_1+b_g e_2)+q(a_c e_1+b_c e_2)-r(e_1+e_2) \qquad (A\,4)$$
$$a_g=MVDgP(D)g,$$
$$b_g=MVIgP(I)g,$$
$$a_c=MVDcP(D)c,$$
$$b_c=MVIcP(I)c$$

where r indicates the parameter of the linear cost function.

Since government prefers the D–effect to the I–effect and as to parliament it is opposite, the parameter a_g exceeds the parameter b_g and similarly b_c exceeds a_c. In addition, the probability p_c is generally smaller than the probability p_g because the I–effect is indirectly caused by using the audit findings.

SAIs of independent type fundamentally keep independence of each government and parliament, so the parameter q is considered one. Also if we assume the total effort by the SAI is constant by the resource constraints and it exterts at least e_{m1} for the D–effect, and e_{m2} for the I–effect to maintain the relationship with clients, the following relation holds :

$$e_1+e_2=e=const. \qquad (A\,5)$$

By substituting the equation (A 5) for (A 4), now we have

$$Ua=[(a_g-b_g)-(b_c-a_c)]e_1+(b_g+b_c-r)e \qquad (A\,6)$$

Therefore, if (a_g-b_g) exceeds (b_c-a_c), that is, government's preference of the D–effect over the I–effect is more than parliament's inverse one, the more effort for the D–effect e_1 increases the more the SAI's utility Ua increases. On the contrary, if the relation of parliament to government about preference for the two effects is reverse, the SAI would extert more effort for the I–effect because increasing e_2 promotes Ua.

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Kiyoshi Yamamoto

Abstract

Government auditing has been moving to the international harmonisation because of an increase in public accountability and the activities of the International Organisation of Supreme Audit Institutions (INTOSAI). Supreme Audit Institutions (SAIs) in developed countries are, however, fairly different in functions and influence on the government. This paper focuses on these differences and shows they have been caused by each SAI's rational behaviour for its clients.