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SELECTING AND RANKING ISSUES IN PROGRAM EVALUATIONS AND VALUE-FOR-MONEY AUDITS

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Abstract — This article compares methods of selecting and ranking issues in program evaluations and value-for-money audits. It considers the following questions: Who should select the issues? What are the appropriate criteria for selecting issues, and can these criteria be collapsed into a single index of "issue importance" by which issues can be ranked?

Résumé — Cette étude compare les méthodes utilisées pour sélectionner et classifier les problèmes rencontrés lors d'evaluations de programmes et de vérification de valeur. Les propos suivants sont considérés: Qui devrait sélectioner les problèmes à analyser? Quels sont les critères convenables pour cette sélection? Est-ce que ces critères peuvent être regroupés par "valeur" et être ensuite classés selon leur importance relative?

THE QUALITY OF A program evaluation or value-for-money (VFM) audit depends to a large extent on whether the right issues are addressed. An academic researcher is free to choose any issue that seems to him or her to be of importance. In contrast, the government evaluator or auditor is constrained to follow standard systems and practices that guide the selection of issues (Auditor General of Canada, 1984; Public Sector Accounting and Auditing Committee of the Canadian Institute of Chartered Accountants [CICA], 1988; Treasury Board of Canada, Office of the Comptroller General, 1981, 1989). Evaluators and auditors have developed somewhat different systems for identifying and ranking issues and, at this time, each may offer some lessons to the other.

PART 1: WHO SHOULD SELECT THE ISSUES TO BE STUDIED?

Evaluation issues must be defined in a legitimate and competent manner. **Legitimacy** is a matter of the stake holders in the program having a voice in issue selection in proportion to their "stake." In a simple situation (for example, an owner-manager of a private company contracting for an evaluation of the company's marketing program), the stakeholders are few and are easily identified. In a typical government program evaluation/VFM audit, however, this is not the case — the stakeholders are many and often cannot be consulted directly. Specifically, the taxpayers are the principal stakeholders in public programs because they provide the resources, and their confidence is the ultimate source of legitimacy for any government action. The next most important stakeholder is the program beneficiary. Public servants are legitimate stakeholders only insofar as they serve the interests of these primary groups.

Competence in the selection of issues is the ability to recognize the issues that are essential to achieving the primary stakeholder interests and to define them in a way that can be successfully addressed by the methods of evaluation or audit within the resources available. It is interesting to observe how program evaluation and VFM audit, within the Government of Canada, have taken different approaches to the problems of legitimacy and competence in issue selection.

The Office of the Auditor General may undertake a value-for-money examination of any program in any government department and may address any issues pertaining to value-for-money. The initiative lies with the auditors themselves. This does not raise competence questions — the VFM auditors are skilled in identifying value-for-money (the "public interest") in a program. However, the autonomy of the Office of the Auditor General in setting the agenda for VFM audits has sparked a debate about legitimacy, with one commentator arguing that the Auditor General's powers contravene ministerial responsibility in the parliamentary system (Sutherland & Baltacioglu, 1989, chap. 3). In my opinion this criticism is not well founded. The Auditor General's power to set the agenda for VFM audits is legitimate, because Parliament, needing reporting on value-for-money, has expressly mandated that he provide it, free from partisan interest (Auditor General Act, 1977). There is no reason to believe that "ministerial responsibility" is incompatible with complete openness and full accountability (apart from exceptional cases of national security).

An interesting indicator of likely future trends in Canada is provided by the U.S. General Accounting Office whose approach to initiating VFM audits has changed over the past twenty years. "Until the 1970s, virtually all of the General Accounting Office's work responded to GAO's own sense of need and priorities. As late as 1969, for example, it is estimated that no more than 10% of GAO's reports were in response to congressional requests. . . By 1977, congressional requests and statutorily-mandated audits and reviews were absorbing 35% of GAO staff resources. . . The trend, once established, was irreversible" (Havens, 1990, p.14). By 1988 more than 80% of GAO's resources were spent responding to specific congressional requests (Havens, 1990).

In Canada, there has been a debate over whether the Auditor General may choose to examine the value-for-money of "policy" decisions. In Britain, the National Audit Office may not examine the merits of policy (National Audit Act, 1983), whereas, in the United States, the General Accounting Office may. The original GAO responsibilities are set out in the U.S. Budget and Accounting Act (1921). Value-for-money responsibilities were articulated in the Legislative Reorganization Act of 1970, and were then enacted in expanded form in the congressional Budget and Impoundment Control Act of 1974 and consolidated in the General Accounting Office Act of 1980.

Following the British model, Canadian VFM auditors regard policy analysis as the province of managers, not of themselves, unlike program evaluators, who routinely make policy recommendations on the basis of their research. Auditors avoid "policy issues." This creates two difficulties for them: First, value-for-money may have as much to do with correct policy as with prudent administration. Second, "context" research is always necessary if the audit team is to understand what constitutes value-for-money in a particular instance (judgments about the value-for-money of a farm program, for example, require an understanding of the agricultural economy). Unfortunately, this distinction between context research and policy analysis is not well understood.

As well, there are major differences in audit relevance between two different types of policy issues. Specifically, a distinction between legislative policy decisions (not be be questioned by the auditors) and executive policy decisions (fair game) would help, but has not emerged. This is understandable, as the Canadian political system does not draw the distinction clearly. In contrast, the United States stringently separates legislative and executive power and therefore finds it easier to deal with the distinction between the two types of policy decision.

For example, in Canada, Parliament has passed legislation on the review of foreign investment. In implementing this legislation, cabinet considers specific cases and makes decisions. These decisions execute the legislation, well or badly. In the United States, such decisions would be subject to value-for-money review by the General Accounting Office. In Canada, they are regarded as sacrosanct and beyond the audit pale.

An interesting variation in authority to select audit issues arises in Canadian crown corporations. In 1984 amendments to the Financial Administration Act (Canada, 1984) required "special examinations" (similar to a comprehensive audit) of crown corporations, every five years. The corporation may use any competent auditor, private or public. Most importantly, whoever does the audit, whether the Auditor General or a private firm, the audit report is submitted to the board of directors of the crown corporation, not to parliament. Therefore, one might expect that the auditor would be instructed in more detail by the client (the board) on the selection of value-for-money issues than might be the case in an audit of a government department. In practice, however, the difference may not be great, since the professional associations of auditors play an important role in defining acceptable audit practice and thereby limit client control of issue selection (Public Sector Accounting Committee of CICA, 1988). As well, issues and audit criteria are typically agreed upon by auditors and managers of the organization to be audited (perhaps "negotiated" is too strong a word) at the start of VFM audits in both departments and crown corporations.

In contrast to both VFM audits and special examinations, program evaluations within the Government of Canada are closely instructed, in the study-design phase, by the organization being examined. The deputy minister selects the programs to be evaluated and the issues to be addressed. "The Deputy Head should. . . be significantly involved in the evaluation assessment. . . by. . . approving the selection of the issues to be examined" (Treasury Board, 1981, p. 27). He or she is advised by an Evaluation Assessment (evaluation plan) prepared by staff, setting out options for the evaluation study design. While VFM audits start with a similar planning exercise, called the "survey phase," the product of this phase of a VFM audit is seldom submitted to the organization being audited. In contrast, Evaluation Assessments always formally submit recommendations on the design of the proposed evaluation study to decision makers external to the evaluation team.

Evaluation Assessments include a detailed examination of the program (profile) followed by an analysis of issues (issue briefs), and, on the basis of the issues identified, an analysis of evaluation study options. This analysis concludes with issues and evaluation methods, bundled into "options for evaluation" from which the senior managers of the department may choose.

This process of issue selection involves a potential conflict of interest because the personal or departmental interests of managers may result in some "sensitive" but important (to the public interest) issues not being selected. However, two factors militate against conflict of interest. First, the negotiation between the professional evaluators and the mangers of the program, as regards the issues to be studied, is unavoidable — without the disinterested professionalism of the evaluator, the work will not be credible, and without managers' concurrence with the issues selected, implementation of recommendations is unlikely. Second, conceptual clarity about what are factual questions and what are strategic issues makes conflict of interest less likely. A deputy minister will seldom wish to restrict the factual questions that may be asked about a program (assuming the program is to be evaluated at all). The "strategic issues," however, defined as the strategic decisions facing the deputy, are appropriately selected by him or her.

PART 2: HOW SHOULD THE ISSUES BE ORGANIZED?

In order to organize multiple issues into a coherent conceptual framework, evaluators often group them into main issues and sub-issues. It is useful to think of the main issues as "strategic issues" (closely linked with a specific decision to be made by program managers in the future) and the sub-issues as "factual questions" (important information but less closely linked to a specific decision to be made). Some evaluators have argued that factual questions are so important that most evaluation studies should be "goal free" (Scriven, 1983), focused exclusively on factual questions, leaving the strategic issues to managerial and political judgment. However, even those who do not subscribe to this view might find it useful to distinguish between factual questions and strategic issues.

Multiple Factual Questions Underpin Each Strategic Issue

Strategic issues require prior analysis of many factual questions. These factual questions may have no exclusive link with any single strategic issue. In fact in both evaluation and audit, there is a need for factual (issue-neutral) data on which to build an understanding of the program before strategic issues are addressed at all.

Examples may make the distinction clearer. Consider a fellowship program run by the federal government for which awards were originally adjudicated by committees in face-to-face meetings in Ottawa. To economize on travel costs, these meetings were abandoned and replaced by telephone conversations. In this situation, a strategic VFM issue would be: Is the quality of adjudication harmed by decision-making committees not meeting in person? Or, more bluntly: Should adjudication committees meet in person? One related factual question is: Is the variability of the scores given to a single applicant by several committee members increased when they do not meet in person to discuss the application? Other examples of strategic issues and some associated factual questions follow.

Strategic Issue: Should the program funding be expanded or contracted?

> *Examples of associated factual questions*: How quickly could the program be terminated and at what cost? What would be the cost of expanding the program by X%? Would benefits increase in proportion? Could the program be managed at the larger scale?

Strategic Issue: Should the organization of the program be altered?

> *Examples of associated factual questions*: Are all stakeholders represented in decision making? Are responsibilities of staff clear?

Strategic Issue: Should the administration of the program be altered?

> *Examples of associated factual questions*: Are applications and payments made expeditiously? Are recipient selection criteria clear, and are they followed?

Strategic Issue: Should communications be altered?

> *Examples of associated factual questions*: Do the potential recipients know about the program? Are all stakeholders informed?

Another distinction between factual questions and strategic issues is that quantitative data analysis can often settle factual questions. In contrast, advice on strategic issues generally requires judgment based on a qualitative synthesis of many types of information, only some of which may be quantitative.

The distinction between factual questions and strategic issues has practical implications. For example, it helps solve the "multiple issue dilemma" (Corbeil, 1989). How many questions should be considered in evaluation and audit plans? Often there seem to be too many. This impression is strengthened if the evaluation/audit plan contains a jumble of factual questions and strategic issues mixed together. Fortunately, the assessment report or audit survey report offers opportunities to separate factual questions and strategic issues. Factual questions can be dealt with in the "program profile" and can be linked to specific data collection, analysis, and testing. A large number of factual questions, if needed, can be included. The second part of the evaluation/audit plan, freed of the burden of a mass of factual questions, can then concentrate on the analytical needs of a few strategic issues.

Distinguishing between factual questions and strategic issues also offers a useful distinction between *Evaluation Frameworks* (listing only factual questions, which the program managers can answer by collecting data as they go along) and *Evaluation Assessments* (done just before an evaluation study and concentrating on strategic issues).

Finally, both program evaluations and VFM audits require *context research* (What are the target group's needs and is the program an adequate response?), accountability analysis (Have past commitments to objectives been realized?), and *policy analysis* (What are the stakeholders' values and preferences, and what are conditions likely to be in the future?). While a factual question may relate to only one of these areas, strategic issues require analysis of all three.

PART 3: WHAT CRITERIA SHOULD BE USED TO SELECT ISSUES?

Mandatory Issues

Strategic issues are always discretionary because they depend upon the decision maker's assessment of the strategic situation, while factual questions should in some cases be mandatory. In program evaluations, the separation of factual questions from strategic issues has the advantage of removing the selection of factual questions from the area of management discretion, where they are a poor fit because of potential conflict of interest. Making any reasonable set of factual questions mandatory would increase the objectivity, the comparability and perhaps the quality of evaluation studies and value-for-money audits.

Ranking Strategic Issues

In a particular study the strategic issues are key. Deciding among them determines the scope of the evaluation. Therefore, ranking the strategic issues is central to scoping the study. Ranking factual questions seldom makes sense, but ranking strategic issues always does. However, in order to rank the strategic issues, one must have clear criteria and a method of consolidating the scores on various criteria into a single measure of issue importance.

Since the program evaluators have limited themselves to offering a choice of issues to the deputy minister, they have not given much attention to issue-selection criteria. The value-for-money auditors, on the other hand, being relatively unrestricted in choosing lines of enquiry, have emphasized the role of issue selection criteria and have more to say about it (Shaffran, 1987). Evaluators could also use the three criteria of issue importance that are frequently used by VFM auditors.

Importance Criterion 1: The Materiality of a Strategic Issue. The first component of the importance of an issue, "materiality," is a function of the human and other resources expended, the likely impacts on the program clientele, the size of the target group, interdepartmental interests, public visibility, parliamentary priorities, and management priorities (Auditor General, 1984).

The materiality of a whole program or a whole organizational unit is relatively easy to estimate because the resources used by the program are known and these resources are a reasonable proxy for materiality in most cases. However, the materiality of a single strategic issue may be difficult to judge with precision, prior to evaluation research, because defining what is at stake in regard to a single strategic issue may require careful analysis and complex measurement.

The materiality of a single issue cannot be larger than the total program resources, or, more precisely, than all stakeholders' resources at risk because of the program. If one considers the example of the fellowships program discussed earlier, one might conclude that, relative to the $4 million total resources of the program, $1 million in potential benefits is put at risk by the quality of award adjudication. This $1 million can be used as the measure of the materiality of the adjudication issue. Within a single program, one can simplify the materiality measure to a percentage (0.25 in this case) of the total resources of the program to facilitate the construction of an index of the relative importance of issues (see the following section: "Issue Importance Score").

This materiality value is often a subjective estimate, and therefore uncertain to some degree. However, it can be depended upon to the degree that it is the judgment of a person qualified to assess how important the issue is to the effectiveness of the program (Leslie, 1985).

Problems in estimating materiality can derive from complexity or moral sensitivity. An example involving moral sensitivity is "valuing lives saved." Some regard valuing lives in dollar terms as morally insensitive, at best. If one takes this position, then the estimation of the materiality of many health and safety issues will be difficult. An example of complexity making it difficult to estimate the "materiality" of an issue is the case where, although the expected loss from a deliberate fraud may be small, it threatens the integrity of management and therefore, in the end, might result in large losses. What these losses might be is intrinsically difficult to judge. In these and many other situations, measurement of the materiality of particular issues is difficult and often requires evaluation research.

Importance Criterion 2: Risk of Loss Associated with a Strategic Issue. The second component of the importance of an issue is the risk that a VFM failure will occur. This has two aspects (Shaffran, 1985). The first is the "inherent" risk of the program. To continue with our fellowship awards example, the probability that the adjudication process will fail to identify the best candidates because adjudication committee members do not meet together face-to-face might be judged to be 0.02

(inherent risk). The second aspect is "control" risk in the systems and practices of the awards program. This is the probability that the adjudication ***review*** (control) procedures will fail to remedy adjudication anomalies when they occur. For example, this probability might be judged to be 0.3. Then the total "risk" associated with the adjudication issue is [0.02 x 0.3] = 0.006. This is a risk that an adjudication error will occur and the error will not caught nor remedied.

Risk is no easier to estimate than materiality. However, there is a large literature on subjective risk estimation (Raiffa, 1986; Spetzler & von Holstein, 1972), and several computer programs have been developed to assist the risk estimator (Stanford Research Institute, 1977).

Importance Criterion 3: Auditability/Evaluability of Strategic Issues. The third component of the importance of an issue is its "auditability/evaluability." This is the probability that the audit/evaluation team will deal successfully with a particular issue. This likelihood of success is affected by many factors, including how well the state-of-the-audit-art can handle certain types of issues; the resources available (the expertise of team members, and the time and dollars available); and the limitations, if any, in the authority to conduct the evaluation/audit.

Like estimates of materiality and risk, the estimates of auditability/evaluability are subjective. However, the auditor/evaluator can reasonably claim to be the appropriate expert on auditability/evaluability and can make the estimate of probability without the extensive data gathering, analysis, and consultation that might be needed when estimating materiality or risk. Nevertheless, care must be taken that a facile estimate of auditability does not overwhelm the materiality/risk component of the issue-ranking score. In fact, there is an argument for ranking issues only by their materiality/risk. If an issue ranks high on materiality/risk then a way must be found to audit it.

The Issue Importance Score

Assigning the issues a numerical score on each of these three criteria is essential if these scores are to be collapsed into a single index number reflecting the overall importance of the issue. If some non-numerical system is used to score the issues on materiality, risk, or evaluability (high, medium, and low, for example), then there is no way to produce a single definitive ranking of the issues.

Given numerical values, the three criteria scores for each issue can be combined into a single index number by multiplication. "Issue Importance" = (the materiality of a possible failure of value-for-money linked with a particular issue) x (the probable risk of such a failure) x (the probability that the VFM failure will not be identified and remedied). Using probability theory terminology, this calculation gives the expected value of the strategic issue. This expected value may then be multiplied by the "auditability/evaluability factor" (Criterion 3) to provide a definitive ranking of strategic issues in order of priority for the audit/evaluation study. We might call this the Study Priority Index.

This sytematic process will give a reasonably dependable indication of the relative importance of various issues. Nevertheless, one should not set too much store by the scores. They are not objective measurements, but rather are systematic subjective estimates. Therefore, the issue ranking suggested by the Study Priority Index should not be followed blindly, but should be reviewed for reasonableness.

CONCLUSION

In summary, both program evaluators and VFM auditors have developed useful approaches to defining and selecting issues. Two aspects appear to be particularly important: first, distinguishing between factual questions (some of which should be mandatory) and strategic issues (which are always discretionary); and second, using explicit and consistent criteria to rank the strategic issues (not the factual questions) in order of importance. This approach assists the evaluator in addressing the legitimate interests of all significant stakeholders in selecting issues for analysis, but does not replace professional judgement.

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