

PROMOTING ACCOUNTABILITY AND CONTINUAL IMPROVEMENT: A REVIEW OF THE RESPECTIVE ROLES OF PERFORMANCE MEASUREMENT, AUDITING, EVALUATION, AND REPORTING

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Abstract: In response to growing demands for accountability and the benefits associated with continual improvement, private and public sector organizations are increasingly applying aspects of performance management. This article provides a synthesis of the literature as it pertains to the principles and practices underlying performance measurement, auditing, evaluation, and reporting. In bringing these elements together to comprise a performance management system, it is argued, an organization can demonstrate accountability and facilitate continual improvement. The article concludes with a discussion of how this can be achieved, namely through the refinement of strategic direction, reporting on key measures, and periodic reviews of performance in a systematic manner.

Résumé: En raison des exigences croissantes au niveau de la responsabilité et des avantages reliés à l'amélioration continue, les organismes des secteurs privés et publics appliquent de plus en plus les divers aspects de la gestion de performance. Cet article apporte une synthèse de la littérature se rapportant aux principes et pratiques sous-jacents à l'évaluation de la performance, la vérification, l'évaluation, et la façon de rendre compte. En rassemblant ces éléments afin de créer un système de gestion de performance, il est ensuite démontré qu'une organisation peut faire valoir sa responsabilité et faciliter l'amélioration continue. Cet article conclut sur une discussion de la façon dont ceci peut être accompli, plus précisément par le biais du repositionnement stratégique de la direction, des moyens clés, et d'une révision standard et périodique de la performance.

Within the last century, if not earlier, the notions of accountability and continual improvement were being formally applied

by organizations such as the Bell Telephone Company. In this case, Bell Telephone established annual performance goals along with measures to assess progress and pursued benchmarking as a means of identifying leading industry standards (Drucker, 1995). Similarly, the Canadian federal government formalized the role of financial and compliance audits with the passing of the *Finance Act* of 1869 and the subsequent *Consolidated Revenue and Audit Act* of 1931. The scope of this function has since broadened to include evaluations of the continuing rationale for a program and to provide information on aspects of efficiency, effectiveness, and economy (Müller-Clemm & Barnes, 1997).

Although the context for the first example is a commercial organization and the second involves a level of government, the need to demonstrate accountability and for continual improvement is jointly applicable. At the highest level, similarities may be drawn between the public and private sector with respect to lines of accountability. Specifically, the requests and expectations of internal (e.g., executive) and, to varying degrees, external (e.g., community members and special interest groups) constituents must be managed. Furthermore, pressures exist in both sectors to demonstrate performance, with the historic emphasis being on the control of expenditures and financial results. Finally, it can be argued that the manner in which “programs” are administered and their effectiveness should be frequently reviewed in either setting (Reid & Hagarty, 1998).¹ As stated by Longmire (1995) with respect to monitoring:

You can't improve business processes until you can measure them. This basic principle is as applicable to government as it is to business. After all, government and business are alike in that we manage activities, resources and people. Both are facing significant cutbacks – and both have to do more with less to succeed in today's environment. (p. 1)

In like fashion, Patton (1997) notes that:

The challenge of evaluation extends well beyond government-supported programming ... corporations, philanthropic foundations, and non-profit agencies are increasingly turning to evaluators for help in enhancing their organizational effectiveness. (p. 15)

This article provides a synthesis of the literature as it pertains to the history and practice of performance measurement, auditing, evaluation, and reporting. In light of the similarities outlined above, it then asserts that these elements can be integrated as part of a management system that supports accountability and continuous improvement in either a public or private sector context.

PERFORMANCE MEASUREMENT

The concept of performance measurement dates back to the beginning of the twentieth century, when attempts were made to measure worker productivity and manufacturing costs (Garvin, 1993; Jorjani, 1998). This indicates that there has always been a longstanding need for information on the performance of an organization, business unit, or program, either to support management or for external reporting purposes (King, 1998). It was during the 1960s and 1970s, though, that the practice of monitoring performance became more formalized and the scope broadened beyond the use of single measures such as costs. In the Canadian federal government, for example, an “operational performance measurement system” was introduced in the early 1970s. The intent of this system and subsequent related efforts was to provide Treasury Board with information that could be used for program reviews and resource allocation decisions (Müller-Clemm & Barnes, 1997). Similarly, during this period of time, performance measurement in an environmental context began to take place, namely in the form of impact assessments (Kuhre, 1998). Over the last two decades, the scope of performance measurement has continued to grow, particularly in terms of “state-of-the-environment” reporting and “results-based” management in the public sector (Jorjani, 1998; OAG & DMC, 1995, 1996, 1997; Rutman, 1984). As identified by Walter and Wilkerson (1994), a notable increase in the reporting of environmental and, to a lesser degree, economic, social, and cultural outcomes was evident following the publication of *Our Common Future* by the World Commission on Environment and Development in 1987.

A significant effect of the report has been a renewed and growing interest in environmental monitoring and reporting ... *Our Common Future* has also stimulated an increased interest in measuring and monitoring the social, economic and cultural dimensions of sustainable development. (Walter & Wilkerson, 1994, p. 154)

Consistent with this evolution in use and scope, performance measurement should enable managers and other stakeholders to assess, on an ongoing basis, whether activities have resulted in the achievement of stated goals, objectives, and targets. Furthermore, it should provide the basis for revising strategic direction and policies (Eckel, Fisher, & Russell, 1992). Performance measurement supports these types of decisions through the monitoring and reporting of specific measures (i.e., statements of “what” is to be measured) and indicators (i.e., quantitative parameters or metrics that serve to operationalize the measure) of change (Corbeil, 1994). Measures and indicators can be used in this regard to provide information on various aspects of performance, including:

- the use of inputs—material, energy, human and financial resources;
- specific activities;
- direct service, product and non-product (i.e., wastes, emissions and discharges) outputs; and
- outcomes—the consequences of an activity or output, ranging from immediate to long-term (Corbeil, 1994; Horne, 1996; Rutman, 1984; US General Accounting Office [GAO], 1998a).

The level of attribution assists in making the distinction between an output and an outcome. Specifically, an output is a direct consequence of an activity and under the control of an organization. An outcome, in contrast, is a longer-term result which is influenced by factors external to an organization and over which there is less control (Nutter, 1992).

Performance can also be measured in both qualitative and quantitative terms. Quantitative measures provide information on changes in such parameters as level of financial investment or material consumption (Allen, 1998; Brown & Dray, 1996). Qualitative measures, in contrast, are applied at a higher level and provide information on the manner in which a program, process, activity, or issue is being implemented and/or managed. A further distinction can be made in that qualitative measures can be used in cases where there are too many considerations to be adequately captured by a narrower quantitative approach, or where there is a substantial delay between a specific action and demonstrated results (Brown & Dray, 1996). Although, as noted by Winston (1995), there may be a lack of consensus among practitioners and expert sources about the application of

qualitative measures of performance, this does not preclude their role in a management system.

Think of ... the dials and indicators in an airplane cockpit. For the complex task of navigating and flying an airplane, pilots need detailed information about many aspects of the flight. They need information on fuel, air speed, altitude, bearing, destination, and other indicators that summarize the current and predicted environment. Reliance on one instrument can be fatal. (Kaplan & Norton, 1992, p. 72)

In summary, reporting on a balanced set of measures and indicators provides managers and other stakeholders with a sense of progress in relation to specified goals and objectives, as well as an indication of actions that can be implemented to address performance shortfalls (Ferris, 1992; Hudson, Mayne, & Thomlison, 1992; Jorjani, 1998; Longmire, 1995; Schene & Salmon, 1997).

AUDITING

The rudimentary practice of auditing dates back several centuries to the need for property owners to verify financial transactions and statements as provided by their agents (Hudson & McRobert, 1984; Sawyer, 1981). The independent verification of records and accounts emerged much later in North America, arising as a result of British investments in the 19th century (Sawyer, 1981). In the context of the Canadian government, an auditing function arose in the late 1800s within a traditional financial and compliance context marked by the creation of the federal Treasury Board and passing of the *Finance Act* in 1869 (Müller-Clemm & Barnes, 1997).

The scope of auditing has since expanded, going beyond the provision of an opinion on financial statements and assertions to assessments of effectiveness (Leeuw, 1992). In 1984, Canadian federal legislation was enacted (i.e., part X of the *Financial Administration Act*) with the intent of improving the direction, control, and accountability of Crown corporations through “special examinations” of management systems and practices. In response, the Canadian Comprehensive Auditing Foundation (CCAF), a national non-profit organization, appointed an independent panel to review and comment on the concept of effectiveness and how it could be judged (OAG, 1995). These events culminated in 1987 with the publishing by the

CCAF of a study titled *Effectiveness Reporting and Auditing in the Public Sector*. This publication advanced the notion that the senior management of an organization receives authority and resources as delegated by a governing body (e.g., board of directors) and that to satisfy this accountability relationship, management should report on the effectiveness of the organization and its activities. Auditors, in turn, were seen as playing a key role in providing the governing body with assurances regarding the fairness and completeness of information. Further, the CCAF independent panel went on to note that “in the absence of an active management effort to report on effectiveness, however, there is always the possibility that auditors may be asked to fill the gap and assume what would more properly be a management perspective” (CCAF, 1993, p. 217).

One of the distinguishing aspects of an audit is the use of criteria and standards that form the “yardstick” against which evidence is compared in arriving at a judgment or audit opinion (Hudson & McRobert, 1984). Other requirements that must be met in order for a review function to be legitimately called an audit are: it must support an accountability relationship; the investigators must be independent and objective; and there must be an explicit consideration of risk (CCAF, 1991; Canadian Environmental Auditing Association [CEAA], 1998; Small, 1998). With respect to the latter, risk encompasses the potential for management processes or practices to be ineffective in terms of ensuring that appropriate decisions are made and proscribed activities are detected or prevented (CEAA, 1998; Etherington & Gordon, 1985).

In keeping with these distinguishing characteristics, an audit is defined in this article as an independent, objective assessment of management representations on performance (i.e., attestation) or, alternatively, an assessment and opinion on management systems and practices in terms of the degree to which they meet established criteria for performance (i.e., direct reporting) (CCAF, 1991). These criteria for performance are typically based on existing policies, practices, procedures, or other requirements such as prevalent standards, guidelines, organizational specifications, and legislation (CEAA, 1998).

Four types of audits have generally been defined in practice and in the literature, namely financial, compliance, performance, and environmental. A financial audit focuses on providing independent assurance that the information, as presented, is credible and that

adequate financial controls are present. A compliance audit, in contrast, provides an assessment of the level of compliance with legislation and established policy, procedures, and standards. A performance, or "value-for-money," audit provides for both attestation and a direct examination of organizational and program elements in order to ensure that value is received for the resources contributed to their operation (OAG, 1997, 1998). Finally, there are environmental audits, which assess whether organizational structures, management systems, activities and equipment conform with established environmental performance criteria. These criteria, in turn, cover the effective control of practices and compliance with policies, standards, and regulatory requirements (CEAA, 1998; Eckel, Fisher, & Russell, 1992).

PROGRAM EVALUATION

The application of social science research methods to policy making and program assessment was first conceived in the late 1950s and early 1960s. The emphasis at this point in time was on the use of sophisticated, quantitative tools in the examination of alternatives and effectiveness of implementation and operation (Patton, 1997; Rowe & Jacobs, 1998).

Program evaluation as a distinct field of professional practice was born of two lessons from this period of large-scale social experimentation and government intervention: first, there is not enough money to do all the things that need doing; and second, even if there were enough money, it takes more than money to solve complex human and social problems. (Patton, 1997, p. 11)

This notwithstanding, the practice of program evaluation was underutilized over the next two decades (Hudson, Mayne, & Thomlison, 1992; Hudson & McRobert, 1984; Patton, 1997). The major perceived barriers in this regard were political considerations, including budgetary concerns, and the fact that "before the field of evaluation identified and adopted its own standards ... use was ignored. Methods decisions dominated the evaluation design process ... whether decision-makers understood such analyses was not the researcher's problem" (Patton, 1997, p. 16).

In Canada, the federal government has been one of the main drivers behind the adoption and use of program evaluations (Müller-

Clemm & Barnes, 1997). Initially, evaluations were carried out in a sporadic manner by Canadian federal departments during the 1960s and, subsequently, by the Planning Branch of the Treasury Board Secretariat in the mid-1970s. Furthermore, as noted by the Auditor General at that time, few of these evaluations could be viewed as “successful” (McQueen, 1992). In response, the federal Treasury Board issued a policy in 1977 on program evaluation, reaffirming the need for managers to carry out periodic and objective evaluations of their programs. At the same time, the Auditor General of Canada had its mandate expanded “to hold government to account for measuring program effectiveness” (Hudson & Mayne, 1992, p. 206). In addition, within the next three-year period, the Office of the Comptroller General was created with responsibility for carrying out the Treasury Board policy referred to above by facilitating the establishment of evaluation units within federal departments and agencies, as well as conducting evaluations. By 1983, the Auditor General reported that the majority of federal departments had put the necessary structure in place for conducting evaluations, but that the quality of work had to be improved (McQueen, 1992). Consequently, the Office of the Comptroller General published standards in 1984 to make program evaluations more systematic. As reported by the Nielsen Task Force in 1986 though, the quality problems continued with a number of program evaluations as carried out by federal departments being “generally useless and inadequate” as a result of focusing on program impact and delivery to the exclusion of the basic rationale (Segsworth, 1990, p. 61–62). It is apparent that throughout this period of time, the discipline of program evaluation was under stress, particularly in terms of demand, focus, and methods. Methods for conducting an evaluation were subject to change, with a growing preference for less resource-intensive and more qualitative approaches, and more attention paid to program implementation issues (Rutman, 1984). A program evaluation can be defined as:

the use of scientific methods to measure the implementation and outcomes of a program for decision-making purposes ... evaluation draws attention to the significant structural elements of the program—program components, outputs, objectives, and effects. (Rutman, 1984, p. 10)

The use of the term “scientific” is somewhat misleading though, since Rutman (1984) later notes that “a scientific approach ... comprises many different levels of rigor ... various kinds of generally accepted

approaches are available for the collection of quantitative or qualitative data, and there are various types of appropriate research designs” (p. 14–15).

Hence, a program evaluation can draw upon various methods of data collection and analysis (Patton, 1997). In defining what constitutes a program evaluation, it is also important to highlight that there are two basic orientations, namely summative and formative. A summative evaluation entails a review of a program and activities to determine their effectiveness and serves the purpose of rendering judgments as to whether the program or activity should be continued, abolished, or modified in some fashion. A formative evaluation, in contrast, is more forward-looking in that it examines possible improvements to the implementation of a program or activity (Patton, 1997; Rasappan, 1995). A formative evaluation is more equivalent to program monitoring, examining the extent to which goals are still appropriate and identifying potential barriers and areas for improvement (King, Morris, & Fitz-Gibbon, 1987).

REPORTING ON PERFORMANCE

A large number of private and public-sector organizations are now reporting information on various aspects of their performance. This recognizes, in part, that stakeholders are increasingly demanding more accurate information on performance in order to render informed opinions and judgments (Metcalf, Williams, Minter, & Hobson, 1996). For example, based on surveys conducted by various agencies from 1991 to 1993, the use of performance measures as a communications tool in a private-sector context may be seen as a response to:

- regulatory regimes,
- peer pressure,
- litigation,
- consumer demands,
- lack of public confidence,
- operating risks, and
- the need to improve long-term profitability (Canadian Institute of Chartered Accountants [CICA], 1993).

In light of these drivers for reporting on performance as described above, key audiences for reporting purposes include employees, financial investors, creditors, communities, suppliers, and clients/con-

sumers (CICA, 1994). Senior managers and executives should also be considered an important audience, which is consistent with the role they play in performance management. Consequently, internal reporting should provide management, staff, and, potentially, contractors with information on the status of, and trends in, program performance, among other considerations. External reporting would be similar in that organizations need to decide which aspects of their performance to profile in a report or other form of media for release to interested parties (International Organization for Standardization [ISO], 1998). Communication methods can range from direct responses to summary reports and/or meetings. Clearly, the choice of reporting mechanism is ultimately dependent on the nature of the original request or requirement, the specific issue(s) being addressed, and the intended audience.

One of the major concerns raised as part of the debate over corporate reporting is the disclosure of information of a privileged or competitive nature. As noted by Kaplan and Norton (1992), however, this may be dealt with through experience and understanding of the role(s) of performance reporting:

we believe that as senior executives gain confidence in the ability of [performance measures] to monitor strategic performance and predict future financial performance, they will find ways to inform outside investors about those measures without disclosing competitively sensitive information. (p. 80)

INTEGRATING KEY ELEMENTS

An effective performance management system integrates, as part of a continual cycle, the elements of measurement, auditing, evaluation, and reporting. Further, strategic planning can be incorporated as the start and end point for such a system. The separation of planning from performance measurement, review, and reporting is consistent with the observation that policies, goals, objectives, and targets guide actions. Further, they are continuously revised to reflect past performance and changes in the environment within which the organization operates (Allen, 1998; Eckel, Fisher, & Russell, 1992).

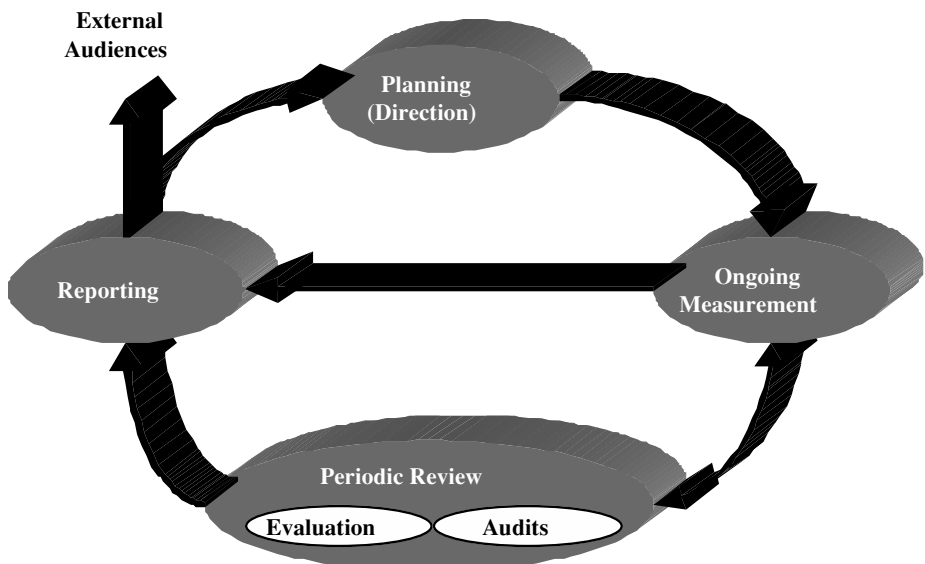
As described earlier, performance measures and indicators play an important role as part of an ongoing evaluative process that serves

to focus management, staff, and other stakeholders' attention on key operational issues and progress towards stated goals, objectives, and targets. The use of performance measures in isolation, however, fails to answer the questions of "how" and "why" the results were achieved.

Thus, PIs [performance indicators] provide no direct implications for action, unless other means are used to explore the reasons for results and the potential for future impact. Indeed, it is dangerous to make decisions about the future of programs based on PIs alone, as this is likely to lead to inappropriate action. (Perrin, 1998, p. 14)

There is, consequently, a need for periodic reviews in addition to an ongoing system of monitoring; "the responsiveness of an organization is often determined by the quality of its performance measurement and evaluation systems" (Nagel, Cutt, & Collins, 1995, p. 17). Audits

Figure 1. Key elements of a performance management system



are one component of this review process and serve as a mechanism of internal control (Kuhre, 1998; Russell & Sacchi, 1997). Typically, senior management and external constituents of an organization require assurances that can be provided through attestation or by directly evaluating performance from a financial, compliance, value-for-money, or environmental perspective (Cutt, 1997).

Similarly, evaluations play an important role, one that can often be distinguished from that of an audit. In the context of an environmental management system (EMS), such a distinction is made with an "audit of the EMS conducted on a periodic basis to determine whether the system conforms to planned arrangements and has been properly implemented and maintained" (Reiley, 1997, p. 548).

An evaluation, in contrast, is similar in scope and nature to a management review as defined under the ISO 14001 standard. Such a review must:

address the environmental dimensions of all activities, products and services of an organization, including their impact on financial performance and the company's competitive position ... [it] should be developed to recognize opportunities for improved environmental performance, identify root causes of noncompliance and follow-up to ensure that corrective and preventative action has been implemented. (Reiley, 1997, p. 549)

Hence, an audit of an EMS is mainly intended to examine conformance with "planned arrangements," whereas a management review (i.e., evaluation) questions the effectiveness of the system and opportunities for improvement (Hagarty, 1998). Although this distinction becomes less clear when comparing performance audits with evaluations (Hudson & Mayne, 1992), there still appear to be dimensions that serve to separate the two functions. An evaluation, for example, can question the rationale, direction, structure, and results of a program or organization.

Evaluation is the application of research methods to assess policy and program design, implementation and effectiveness ... auditing is conclusion-oriented and evaluation is decision-oriented ... evaluation is to provide empirical information that is useful to decision-makers and program managers in developing and

promulgating new programs (policy formulation); in assessing the operation of existing programs (policy execution); and in determining program effectiveness (accountability). (OAG, 1995, p. 12–13)

Similarly, Leeuw (1992) draws on the work of Chelimsky in describing evaluations as being broader in scope, and more descriptive in nature, than an audit which typically examines specific management, financial, and compliance issues: “evaluation tries to understand the program objectives but does not require auditing precision in them, since program effectiveness is not necessarily measured against objectives” (p. 61).

Periodic program evaluations also contribute to the ongoing measurement of performance, particularly in terms of establishing measures and assessing program logic. Furthermore, evaluators may be able to assist with the determination of whether gaps in performance are attributable to the actions of a specific program or agent or the result of external influences (Venton, 1997).

In addition to using program evaluation techniques to clarify program goals and develop reliable measures, several of these program officials saw the need for impact evaluations to supplement their performance data ... Thus, without an impact evaluation or similar effort to separate the effects of their programs from those of other external events or factors, program officials from the previous study recognized that simple examination of outcome measures may not accurately reflect their program’s performance. (US GAO, 1998b, p. 20)

Hence, audits and evaluations should be viewed as complementary, and not redundant, activities. This may change in the future as the scope of performance auditing broadens and the transfer of knowledge between the two disciplines continues: “in my opinion, it will no longer be acceptable nor efficient to have a split-up between performance auditing and policy evaluation, or, put differently, between accountancy, public finance, budgeting and social and behavioural evaluation research” (Leeuw, 1992, p. 65).

For the purposes of this article, though, the two functions are still considered to be distinct elements of a performance management system.

The final element is reporting, both to internal and external audiences: “effective program management also relies on the foundation of open communication of information to all stakeholders” (Metcalf, Williams, Minter, & Hobson, 1995, p. 16).

As described previously, reporting on performance may provide management, staff, and, to varying degrees, external parties with information on: resources used, activities undertaken, results (i.e., outputs and outcomes), level of compliance with rules and procedures, and other aspects of performance (e.g., efficiency and cost-effectiveness). This information, in turn, closes the performance management cycle introduced earlier, allowing for executive direction and strategic planning to be modified (Kaplan & Norton, 1992; OAG, 1997).

CONCLUSION

This article describes the history and practice underlying performance measurement, audits, evaluation, and reporting, beginning with the use of measures and indicators as part of an ongoing evaluative process. By establishing and reporting on a balanced set of measures and indicators, an organization can facilitate the setting of management priorities and the adoption of corrective actions to address unforeseen circumstances and performance shortfalls. This process alone, however, cannot address the questions of “how” and “why” results were achieved, creating a need for a review function. Hence, audits play a valuable role, both in terms of attestation and in directly examining performance from a financial, compliance, value-for-money, and environmental orientation. Although there is an ever-increasing grayness in distinction between performance audits and evaluations, the latter is still seen as playing a complementary role by questioning such aspects as relevance and stakeholder satisfaction. Finally, reporting is instrumental in allowing the organization to respond to stakeholder demands for information on which to render informed opinion and judgment.

These various elements can then be integrated, as part of a continual cycle, into a performance management system. Once adopted, this system can serve accountability by helping to establish direction for the organization and by reporting on measures of performance. Further, it facilitates continuous improvement through ongoing and periodic reviews of performance. This holds true for both pri-

vate and public sector organizations, since both share similarities at a high level.

NOTE

1. Broadly defined, a program consists of resources dedicated to a set of activities and processes that are intended, in turn, to achieve stated goals and objectives (Framst, 1995; Müller-Clemm & Barnes, 1997; Rutman, 1984).

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