Examining Performance in State-Owned Organizations

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The plethora of economic difficulties that confronted many state-owned organizations in the late 1970s and early '80s culminated in higher taxes and rekindled taxpayers' interest in scrutinizing the role of the state, especially in its ability to deliver services and allocate resources adequately to meet societal needs. This paper examines the importance of developing indicators to evaluate results of performance. It also examines the possibility of adopting an open balance sheet approach to assess performance through the development of composite performance indicators. It seeks to add to the efforts currently underway by the Government Accounting Standards Board to develop and adopt appropriate performance indicators for state-owned organizations.

In an interesting introductory paragraph to *Reinventing Government,* Osborne and Gaebler (1993) drew attention to *Time* magazine's cover question: "Is Government Dead?" Perhaps, *Time's* question was an appropriate one, especially in the wake of dwindling confidence levels among taxpayers. As the '90s kept rolling, many taxpayers seemed to be saying yes to *Time*'s popular question (Osborne, and Gaebler, 1993). A recent study initiated by President Clinton to review performance in the public sector found that only 20% of Americans trust the government to do the right thing. This was in sharp contrast to 76% in 1963.

Several reasons can be cited to justify the erosion of confidence among citizens. First, many state governments confronted the decade of the '80s with complex financial difficulties. As a result, many were distracted from performing adequately their traditional roles of priority setting, resource mobilization and allocation, including the provision of essential services to citizens.

Second, prior to the '80s, many governments had faced protracted periods of fiscal imbalances which included acute shortages of resources. This culminated in lay-offs, dwindling services and lowered credit ratings for many. It also led to tax revolts by citizens who demanded efficient government or more services for less money.

Third, privatization of state assets, and transfers to the private sector of some activities previously performed by governments, appeared not to have resolved many of the problems that confronted them.

Fourth, issues of accountability and transparency became important to taxpayers and the rest of society, as measures of efficiency and effectiveness for evaluating performance. It is this fourth element that is of interest to this paper, which seeks to examine the importance of developing acceptable measures for assessing performance of state-owned organizations. It is the contention of this paper that the uses of acceptable performance indicators to assess results of operations of state-owned organizations will ease access to financial information, foster accountability and throw more light on issues of managerial efficiency and effectiveness.

To discuss this further, the paper is divided into three parts. Part one provides an operational definition for state-owned organizations. It also summarizes the literature on the rationale for 'less than optimal' performance within state-owned organizations. Part two examines other factors that may have contributed to inadequate performance and non-attainment of objectives in some cases. Part three introduces critical elements that can be packaged to develop composite indicators. It also examines how these indicators can be used to address questions of efficiency, effectiveness and accountability.

State-Owned Organizations and Arguments for Nonperformance

(i) State-Owned Organizations

The "public sector" tends to have different boundaries in different contexts. Sometimes, the term is used to include government-owned enterprises trading in genuine markets. For instance, the public sector sometimes refers to publicly-owned utilities, investment and trading companies operating in relatively monopolistic markets. In other limited instances, such organizations operate in unregulated markets and compete in open markets with private firms.

For the purpose of this paper, state-owned organizations are defined to include institutions involved in the delivery of public services such as health, welfare, public safety, education and social services. Although the boundaries between public service delivery organizations and public enterprises are becoming blurred as a result of the new movement toward quasi-markets, discussions presented in this paper do not address performance measurement issues of state or privately-owned enterprises operating in markets where performance is assessed by means of mainstream accounting. In effect, state-owned organizations, as used in this paper, do not include organizations which are subject to genuine market forces and market testing.

(ii) Explanations for Less than Optimal Performance

Quite a lot has been written over the past few years about the underlying causes of non-attainment of objectives and inefficiency within state-owned organizations. Although there is no unanimous consensual classification of the contributions made by researchers to the literature on the causes of 'less than optimal performance' in state-owned organizations, positions taken by various contributors can be broadly divided into three groups, namely the X-efficiency group (Leibenstein 1966, 1978); the public choice theorists (Niskanen, 1971; Tullock 1967; Krueger 1974; Orzechowski 1977) and the property right group (Alchian 1965; Demesetz 1967; Pejovich 1969).

(a) The X-Efficiency Group

This group uses the environment in which state-owned organizations operate as the centerpiece of its analysis. Its adherents that those organizations are generally unproductive and inefficient because they are protected by institutional arrangements that do not foster competition and productive efficiency. In essence, competition is a crucial element for fostering productive efficiency, since it provides a basis for comparison, opportunities for choice, and reveals preferences of individuals, thereby forcing firms to come to terms with costs (Stiglizt, 1988). Competition therefore offers consumers choices and assumes that organizations providing better services receive higher income. Because state-owned organizations are shielded from various forms of competition, they are less likely to be innovative, are less risk-taking and more dependent on government protection. Consequently, they are largely unable to produce efficiently and to achieve desired objectives.

(b) The Public Choice Group

Public choice theorists generally share the view that officials of state-owned organizations pay more attention to the maximization of self-interest gains including the sizes of their agencies, than to the objectives of their operating units (Niskanen, 1971). In their opinion, public managers tend to equate their levels of influence with the sizes of their operating units without due regard to the relationships between outputs and inputs. As a result, factors of production – namely; land, labor and capital – are applied to the production or provision of public services without proper attention being paid to the basic economic principle of efficiency. This tendency ignores the efficient amount of goods and services that can be produced with given technology and resources.

Parkinson (1980) notes that since the relationships between outputs and inputs are unclear, the number of officials in those organizations and the quantity of work to be done are often unrelated to each other. Consequently, production and the provision of goods and services occur below the production possibility curve (Orzechowski, 1977).

(c) The Property Right Group

Issues of ownership and control are at the heart of the arguments presented by the property right movement (Pejovich, 1969; Demesetz 1967; Alchian 65). Proponents of the movement contend that ownership and control within the public sector is spread among citizens, sometimes running into the millions. Owners are mainly taxpayers who are often not well organized and have less interest in scrutinizing what goes on. Since taxpayers are not able to develop cohesive groups quickly to challenge unpopular policy decisions of elected officials, they are unable to influence policy objectives and outcomes, thereby allowing serious errors to go largely undetected and uncorrected.

The property right group also argues that reward systems within state-owned organizations are relatively weak because public managers generally have no incentives to maximize organizational gains and residuals, since they derive no direct benefits from those residuals. On the other hand, because remuneration systems in the private sector are tied to performance indicators, managers have more incentives to be risk takers, innovative, cost conscious and maximizers of gains on investments. Within this context, managers of private firms are more likely to adhere to efficiency principles to ultimately maximize gains from the residual value of their firms.

In a nutshell, the lack of incentives for risk-taking on the part of public managers and for partaking in organizational residuals, including the lack of control over management by taxpayers, accounts for the less-than-optimal performance within state-owned organizations.

II. Other Influencing Factors Accounting for Less-than-Optimal Performance

The existing literature on performance measurement in state-owned organizations has been enriched by efforts to address some of the underlying causes of inadequate performance. It appears, however, that past evaluation efforts applied 'single-focus models'[1] that by definition failed to deal with the multiplicity of objectives and outcomes required of state-owned organizations. Besides, the adoption of such models presumed that performance in state-owned organizations could be compared with performance in the private sector using similar gauging criteria. Given the nature of the activities performed by state-owned organizations and the inherent requirements that they meet societal expectations of them, the critical sufficient condition to determine success or failure ought to have been derived from the application of a more comprehensive and exhaustive evaluation framework. Currently, there is no consensus on such a framework for scrutinizing the results of operations of state-owned organizations.

Barton (1979) noted in his model on the causes of bureaucratic problems that the lack of market or science-based performance measures could cause organizations to be inefficient, ineffective, unresponsive and unfair. Barton notes that to ensure accountability in the absence of clear performance measures employees may unnecessarily adhere to rigid rules to protect themselves against penalties and sanctions. A strict adherence to rigid rules can have a

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[1] A single focus model is one which examines only one aspect of the operations of an organization or entity. For instance, a single focus model might examine profit levels of organizations when looking at performance.

negative impact on organizational performance,[2] as measured by the level of efficiency, effectiveness, responsiveness and equity. In addition, a lack of performance measures contributes to weak reward and penalty systems. This reduces job motivation and innovation, which subsequently leads to inefficiency and ineffectiveness, including a lack of response to societal needs and expectations. An abridged version of Barton's model is presented opposite.

The Role of Performance Measures

The above discussion sheds light on the importance of performance indicators in state-owned organizations and shows more clearly the effects of a lack of indicators on performance and subsequently on perceptions and expectations of citizens. More importantly, the absence of such indicators can be a direct cause of less-than-optimal performance in some state-owned organizations. To be able to make informed judgments, organizations need acceptable indicators to reveal the results of operations and to make those outcomes more transparent to taxpayers and other interested parties.

This is not to refute the arguments presented by the X-efficiency, public choice and property right groups. The main flaw in their arguments is the lack of recognition for a different framework for assessing performance in state-owned organizations. For instance, the answer to the question, 'Should similar evaluating criteria be applied to both sectors?' was never properly addressed.

III. Identifying Performance Indicators and an Evaluation Format

It is the contention of this paper that the two sectors are different and that different evaluating frameworks are needed to assess performance. To suggest an appropriate framework for the public sector, I propose the adoption of an Open Balance Sheet concept to performance measurement in state-owned organizations. The Open Balance Sheet (OBS) concept is an integrated, micro-macro model aimed at assessing all aspects of an organization's existence. The OBS model seeks to facilitate the evaluation of organizational goals, objectives, workload, modes of resource acquisition and uses, including information on net impacts on

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[2] For further reading, see Barton (*ibid*)

Barton's[3] Abridged Model on Causes of Bureaucratic Problems

Lack of market or science-based
performance measures

Rigidity of rules

Weak or perverse reward-penalty
systems

Inefficiency
Ineffectiveness
Unresponsiveness
Inequity

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[3] Adapted from Allen H. Barton, "A Diagnosis of Bureaucratic Maladies", American Behavioral Scientist, Vol. 22, No. 5, (May/June, 1979), p. 486.

members of the society. The OBS model focuses on elements considered essential in determining the viability of an organization. More importantly, it combines both micro and macro economic data to assess results of operations, since no single composite measure can adequately communicate the results of providing services (Governmental Accounting Standards Series, #093-5, 1992). The rationale for proposing the OBS concept is to arrive at an integrated and comprehensive evaluation framework aimed at assessing and communicating the results of performance and at the same time at ensuring transparency and accountability.

A. Elements of the OBS

The OBS concept consists of four condensed variables that are referred to as 'Composite Aggregate Values' (CAV). These CAV elements are derivatives of concepts in program evaluation, financial and cost accounting and requirements for technical financial reporting of both public and private sector organizations. The proposed composite aggregate values are divided into 4 categories:

Category 1.-- Contains information on organizational rationale and characteristics of beneficiaries.

Category 2.-- Contains information on organizational performance indicators.

Category 3.-- Contains data on resource needs, sources and uses.

Category 4.-- Contains data on socio-economic impact on society.

Table A shows a summary of the elements of the four categories. In addition, it suggests the types of analyses that can be conducted within each category. For instance, the annual assessment of an organization's performance would integrate qualitative and quantitative information derived from historical data focusing on size, goals, objectives, beneficiaries, resource needs, sources and applications. To be useful to interested parties the data should be provided for a period of three years.

TABLE A

Open Balance Sheet Concept to SOE Performance Evaluation
Elements of the Composite Assessment Values

Composite Values	Elements of the Composite Value	Type of Analysis & Reporting Formats
1. Organizational Rationale and Characteristics	-Type of Organization -Manpower Needs (size) -Goals & Objectives -Characteristics of clientele including size	Qualitative and Historical Analyses--focusing on type of activity, organizational size, goals, objectives, characteristics of beneficiaries--information should be presented for 3 years[4]
2. Organizational Performance Indices	-Demand Measures -Workload Measures -Efficiency (e.g.) a. input/output ratio b. output/input ratio c. equipment & personnel utilization -Effectiveness and Quality	Efficiency or Productivity, Effectiveness, Quality of Service Analyses; Historical and Comparative analyses of all measures--Information should be presented for at least 3 years
3. Organizational Resource Needs & Applications	-Resource Acquisitions -Resource Applications -Assets & Liabilities -Cash Flows	Financial Accounting and Budget Information including Supplemental Financial Data for a period of 3 years
4. Organizational Socio-Economic Impact Indices	a. Economic Variables -employment -value added -investment b. Social Variables	Macro Effects and Impacts on Socio-Economic Development Goals and Objectives--Information should be for at least 3 years

[4] The basis for extending information provided by the four categories to cover a period of three years is similar to the views held by Millar et al. (1981); Carter, 1983; Neves, Wolf and Benton (1986) Levitt and Joyce (1987) on performance evaluation. They contend that performance monitoring systems should compare performance with previous periods and take into account performance levels of different units including a comparative analysis of targeted performance and actual results.

C. Discussion of The CAV Elements

The first category describes the organization, its size, goals, objectives, and the characteristics of its clientele or beneficiaries. For instance, a public agency providing social service functions for needy families may be assessed on the basis of its size (in terms of number of employees), goals and objectives, including specific information about its clientele. In this instance, goals should be clearly stated and should be different from objectives. Goals are generally broad and hardly measurable. Objectives on the other hand, are more specific, measurable, time-oriented and quantifiable. It is important to have the objectives of the organization expressed in measurable and quantifiable terms because by stating the objectives in those terms, interested parties could easily measure efficiency and determine effectiveness or achievement of desired results at the end of a specified period. In the past ten years there has been a move toward achieving this in certain institutions, but quantification presents one of the most difficult problems since many objectives may not be readily quantifiable.

The idea of taking information summarized in Category 1 seriously when evaluating performance is contrary to the principle behind the application of 'single focus models'. When 'single focus models' are used, the rationale for the existence of the organization is often ignored. Also, results from the application of 'single focus models' may be deceptive since positive changes in performance may not necessarily be due to a single factor.

Therefore, the importance of the information provided by Category 1 cannot be underestimated. As common as it may sound, most organizations do not have clearly defined goals and objectives. A distinction between goals and objectives is as significant as the distinction between efficiency and effectiveness. It is equally important to specify the nature of the organization's activity – to determine whether the organization produces economic goods and services, social services, protects constitutional rights of citizens or is aimed at increasing the general welfare of citizens. Among other things, Category 1 provides answers to several questions including the following:

(a) Why is the organization in existence and what has been its goal over the past 3 years?

(b) Has the goal changed over the period in response to emergent societal needs or policies?
(c) What is the size of the organization in terms of its budget and staffing needs?
(d) What has been its size during the past three years?
(e) What are its objectives and who are the beneficiaries?

Answers to these questions can serve the purpose of defending the rationale for creating the organization and for justifying its existence.

The second aspect of the composite aggregate values (Category 2 - organizational performance indices) consists of indicators for assessing adequacy of capacity levels and for gauging achievement of desired objectives, or effectiveness. These indicators may also facilitate the assessment of the level of quality of service provided. The indicators include demand, workload, efficiency, effectiveness and quality measures.

Demand measures "highlight the need for a given public service and indicate the scope and magnitude of a problem .... Workload measures can be developed from demand measures and indicate the amount of work to be performed on a given activity for a specific period of time." (McKinney, 1995).

The definition for efficiency is complex since there are several types. In its simplest form, an efficiency measure is a ratio describing the relationship between outputs and resources. Its purpose is to provide information on how resources are used to achieve desired objectives. However, because of the varied nature of inputs, it is crucial to determine dimensions for each category. Inputs used in some state-owned organizations may include the number of people employed, man-hours paid for, man-hours worked, energy expended, and skills applied, to mention but a few. These inputs are resources expended, including labor, materials, money, and machines, again to mention but a few. Outputs are outcomes and may include goods and services. In other instances, surrogates may be used for outputs. For the purpose of this paper, categories of outputs and inputs for various state-owned enterprises cannot be provided, since classifications may vary from organization to organization and may have to be developed on a case-by-case basis.

The use of productivity measures (sometimes referred to as

TABLE B
Evaluating Format Using the CAV Concept

NAME OF ORGANIZATION
RESULTS OF OPERATIONS FOR FISCAL YEAR 19X3

CATEGORY 1 INFORMATION[5]

A.1	Institutional Area:	Law Enforcement and Public Safety
A.2	Functional Area:	Police Unit
A.3	Activity Area:	Patrol Division
A.4	Direct Personnel:	(Information on Direct Personnel Only)
A.5	Clientele Base:	Community of 450,000 people
A.6	Annual Budget:	
	(a) Current:	$25,000,000
	(b) Previous year:	$22,000,000 for 19X2
A.7	Period of Existence:	(Should show information on period created.)
A.8	Organizational Goal:	
	Current:	(To be expressed in broad terms showing future directions). <u>For example</u>: To respond to citizens' requests for help under emergency and non-emergency conditions.
A.9	Organizational Objectives:	(To be expressed in measurable, quantifiable terms along sub-activity areas).
	(a) Current:	<u>For example</u>: To respond to 100% of the citizens' calls for help in emergency and non-emergency situations.

[5] Assume for the sake of clarity, under Category 1 only, that our interests lie in examining a Unit within the law enforcement agency of City X.

TABLE C
CATEGORY 2 INFORMATION - PERFORMANCE INDICES[7]

Patrol Division of a Public Safety Division

B.1	Demand Measures:	(Will describe in detail the size, extent, scope and nature of problem to be solved using quantifiable weights.)
	(a) Current:	For example: The number of calls for emergency and non-emergency situations.
	(b) Previous 2 years:	
B.2	Workload Measures:	(Will provide concrete information on how much of the demand measures could be done or was done given current resources or capacity level. Express in quantifiable weights)
	(a) Current:	For example: The number of emergency and non-emergency calls responded to.
	(b) Previous 2 years:	
B.3	Efficiency Measures:	(Will provide information on productivity measures)
	(a) Current:	For example: The number of service calls responded to per patrol officer.
B.4	Effectiveness Measures:	(Will provide information on effectiveness measures)
	(a) Current:	

[7] To maintain brevity and focus, thorough explanations for performance measures will not be presented. For a general overall overview of these measures, see Jerome B. McKinney, Effective Financial Management in Public and Nonprofit Agencies, Westport, Greenwood Press Inc., Connecticut, 1986, Chapter 10.

TABLE D

CATEGORY 3 INFORMATION -
SOURCES AND USES OF RESOURCES

C.1. Sources of Revenue: State if revenue is from the General Fund or other sources and state those sources, e.g.

(a) percent derived from taxation

(b) percent derived from state government

(c) percent derived from federal government

(For profit oriented funds, revenue sources can be simply stated as coming from operations)

C.2 Uses of Revenue: State by line item, if appropriate. For example:

Item	19X1	19X2	19X3
	xxx	xxx	xxx

C.3 Financial Reports (Historical information to include past 2 years)

C.3.1 Statement of Expenditures, Revenues and Fund Balance or Income Statement if Proprietary or Internal Service Fund.
C.3.2 Cash Flow Statements
C.3.3 Balance Sheet
C.3.4 Statements of Changes in Equity (if appropriate)

C.4 Footnotes to Financial Reports

Notes to financial statements to include:

C.4.1 Descriptions of accounting policies
C.4.2 Descriptions of taxation policies & assumptions
C.4.3 Descriptions of resource allocation policies & priorities
C.4.4 Descriptions of expected liabilities and contingencies
C.5.5 Other information likely to affect fiscal health including changes in population size, economic development outlook, important revenue sources, pension funds, balances on deferred maintenance budgets, etc.

output efficiency) is not without disadvantages. For instance, by aggregating labor inputs into fewer measures (say, total man-hours utilized), differences in skills and levels of technological development are forsaken. Also, comparing outputs with inputs overlooks the effects of externalities, thus creating distortions. More importantly, restrictions on total output due to limitations imposed by physical dimensions, such as volume, weight and number, are ignored. Within this context, a fixed productivity ratio or output efficiency in the face of increasing inputs may not necessarily be disadvantageous but is, rather, misleading.

Effectiveness measures show the degree to which program objectives have been achieved in terms of quality and indicate the congruence between legislative intent or policy objectives and the actual achievement of the program (McKinney, 1995). Information contained in Category 2 should, therefore, help find answers to the following questions:

(a) Is the organization able to achieve its stated objectives?
(b) Is the current capacity level adequate for achieving desired objectives? An answer to this question could be obtained by comparing demand measures with workload measures. Current demand and workload measures may also be compared with previous periods.
(c) What is the nature of the relationship between output and input?
(d) What is the unit cost of providing service to beneficiaries?
(e) What is the quality of the service being provided?

Not only are answers to the above questions crucial for providing solid information on which to base resource allocation decisions, they also provide a framework for conducting performance and productivity improvement studies. These organizational performance indices are related to the Governmental Accounting Standards Board's (GASB) service efforts and service accomplishments concepts regarding performance measurement and reporting.[3]

[3] By "Service efforts and accomplishments" (SEA), the Governmental Accounting Standards Board means performance measures or measures of effectiveness and efficiency. For further readings, see, "Service Efforts and Accomplishments Reporting: Its Time Has Come", (GASB).

Category 3 provides information describing how resources were acquired and used. It provides information to measure accountability and may facilitate the assessment of the financial condition or health of the organization, which can be accomplished through a review of the organization's general purpose financial statements. Furthermore, Category 3 requirements enhance the chances of obtaining detailed financial information through the disclosure of essential supplementary financial data, including (a) non-cash and cash equivalent activities; (b) policy changes in accounting estimates and principles; (c) legal obligations and contingencies likely to affect those estimates and cash flows within the next few operating cycles; and (d) unfunded pension liabilities, to mention but a few.

Currently, most state-owned organizations are required to make financial disclosures in their Comprehensive Annual Financial Reports (CAFR), similar to annual reports of private sector companies. Because these reports are not standardized, details needed for making informed judgments are often omitted or inappropriately defined and presented. Relatedly, those statements are unaudited by independent auditors, although mandatory verifications and oversights are provided by state auditors. The suggested format will also help to standardize and enhance the quality of the information provided on assets, liabilities,[4] cash flows, and changes in accounting principles.

Table D presented above shows a summary of the type of information that can be presented under Category 3.

The fourth set of the composite values (Category 4) examines the organization's impacts on certain key socio-economic variables. It assesses the unit's impacts on aggregate economic and social factors such as employment, value added, investment, poverty, crime, and improvement in health status of citizens. Value added is defined to include two elements, namely; wages and salaries and an excess called surplus. The excess represents value added data channelled through other distributive mechanisms within the national economy such as

[4] For instance, the 1974 Employee Retirement Income Security Act (ERISA) requires executives in the private sector to fully fund pension liabilities within a reasonable period. ERISA also requires uniform financial reporting and disclosure by corporate pension plans. State and local politicians are not subject to ERISA. (*Forbes* Magazine, June 5, 1995, page 92)

TABLE E

CATEGORY 4 INFORMATION
IMPACT MEASURES

D.1 Economic measures	
D.1.1 Employment data:	(Information on total employment generated including direct and indirect or support staff)
D.1.2 Value added:	(Information on social surpluses created by the unit in the forms of wages and salaries, interest payments, contributions to pension funds, to mention but a few.)
D.1.3 Investment:	(Information on total investment generated by the unit)
D.2 Social measures	(Relative change indices of associated social variables)

taxes paid to the treasury by the organization (if needed), interest payments on borrowed funds (if any), rent, pension funds, to mention but a few. Table E summarizes the type of information that may be classified under Category 4.

It would appear as if the objectives of the fourth category were similar to those of Category 2. This is not the case and the difference lies in the focus of analysis. The former uses a macro approach (since it focuses on aggregate impacts created) while the latter uses a micro perspective focusing on internal management's ability to achieve desired objectives, utilize resources efficiently and provide quality service or product.

Information provided in category D will make it possible for a variety of analyses focusing on macro economic impacts to be conducted. For instance, impact on employment generation can be computed as a percentage of total employment. Similarly, an analyst interested in examining the contribution to growth of output could apply a variant of the CobbDouglas production function to value added data over an extended period of time. Similar studies could be done using investment and labor data. For practical applications of above methodologies, see Jefferson et al. (1992); Dollar (1990).

D. Summary and Other Merits of the Open Balance Sheet Concept

The idea to use the four categories together to assess performance offers certain clear advantages. The OBS approach provides a comprehensive package for conducting an in-depth assessment organizational performance. Unlike 'single focus models', it provides a holistic methodology for conducting historical analyses. It also facilitates a comparison of performance levels of outfits operating under similar or dissimilar economic, political and social mandates or conditions. The proposed framework also cuts across the dichotomy of traditional governmental operations and business-type activities. Besides, it facilitates the uses of varied analytical methodologies for examining various aspects of an organization's operations. For instance, accountability and efficiency questions can be answered by focusing on financial statements and supplemental disclosures contained in Categories 2 and 3. Impacts on key economic aggregates such as contributions to the growth of output, employment and investment can be assessed through comparative and historical analyses of information presented in Category 4. Other sophisticated analyses focusing an organization's net impacts on society can be conducted through benefit-cost analyses or, through the application of variants of Cobb-Douglas production function to analyze value added data and contribution to output.

E. Some Important Questions About the Efficacy of the OBS Concept

It is probably better at this stage to be up-front with likely questions that can be raised from a review of the elements presented in the framework. First, what is to be gained in developing a generic but acceptable framework for assessing performance in state-owned organizations? For instance, history, culture, current level of economic and infrastructure development, extent of political and economic corruption and form of government could render the application of such a framework worthless. In effect, the impacts of such factors may be ignored in a macro-level measure such as the OBS thus, resulting in performance indicators that are meaningless.

While there is some truism in this argument, it is important to note that similar concerns and questions could be raised about frameworks currently used to assess performance in privately-owned organizations. For instance, financial statements used in the private sector to assess performance include the income statement, the balance sheet, the cash flow statement and statements of changes in owners' equity. The standardized nature of the information contained in those statements cuts across regional, political and economic boundaries. At the same time, to properly analyze the financial data in those statements attention is paid to several other extraneous factors which may include but not limited to inflation rate, exchange rates, political stability, form of government, future investment and market prospects, to mention but a few. Although the additional information on the extraneous factors are not provided in the statements to make an informed judgement, extra work is done to obtain those pieces of information.

Therefore, as with any generic macro model, care should be taken when applying the OBS concept to any specific political context since the level of development, form of government, are as important in the evaluation process as are inflation and exchange rate changes, investment prospects, political stability, to mention but a few.

Second, does the OBS concept present enough data on internal management? More specifically, is the framework helpful in determining the extent of control management has over its resources (can it invest funds in assets, reward employees, effect savings for future investment, control fees charged, etc.) given the plethora of regulations under which it must operate? In fact, there are no easy answers to that question, since the extent of political control and influence is a function of the level of political maturity of the society in question and the type of government in power, including the philosophy of the ruling political elite. However, information presented in categories 2 and 3, can help explain how resources are acquired and used. That information can also indicate the nature of the relationship between the use of those resources and output. I might add that, to enhance performance in those organizations, efforts must be made to minimize the amount of regulation under which they operate. As noted earlier, rigidity of rules by themselves could lead to a less than optimal performance.

Third, can the OBS concept be useful to compare organizations of nations within categories, i.e., U.S. and Canadian economies, members of the European community or South American economies? Although the tentative answer is yes, no definitive answers could be given in some of the cases. For instance, some of the elements presented in the model can be readily operationalized in some contexts. They can also be used to conduct comparative studies in those contexts. In other contexts, classification and standardization of social variables could be problematic as we move from country to country. It is important to note that some of the variables prescribed by the model are new and currently non-existent and, may have to be developed from the scratch.

Conclusion

In spite of some of the caveats discussed immediately above, the proposed open balance sheet concept seeks to reiterate the need for transparency and complete access to pertinent information on state-owned organizations. This is essential because efficiency and accountability questions can only be properly addressed if sufficient information is generated and made available to make informed judgments. Currently, most state-owned organizations do not use standardized formats to provide information and many are unable to disclose detailed financial data on items such as unfunded pension liabilities, balances on deferred maintenance and capital budgets, contingencies, to mention but a few.

In view of the paucity of data on those organizations, the OBS format calls for the development of several composite values. This will require the gathering and creation of integrated data banks on state-owned organizations. The proposed integrated data banks would be similar to what currently exist in the private sector on private firms. There is no doubt that more information exist on most private firms than can be found on public sector institutions. I might add that, the notion of inefficiency and non-attainment of original objectives on the parts of state-owned organizations and the falling confidence levels of citizens in government stem partly from the vacuum created by a lack of information.

There is also the perception that politicians and public administrators make decisions to maximize their self-interests by exploiting the information asymmetry existing between themselves and the taxpayers. An open balance sheet approach to assessment is likely to eliminate that misunderstanding. It would also facilitate access to information required by interested parties to defend the existence of state-owned organizations.

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Intelligence and National Achievement

Editor

Raymond B. Cattell

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Tackling Juvenile Crime

Robert L. Sexton
Pepperdine University

"Last year a 14 year-old drug runner in the District of Columbia shot and killed three people on the same day. The drug dealer for whom the juvenile worked was convicted of felony murder, but the juvenile served a total of only 26 months in juvenile detention for the three killings. He was back on the street taunting local police before his 17th birthday"

Washington Post, July 31, 1991

A vast majority of states in the United States do not gain jurisdiction over young offenders in criminal courts until they reach the age of eighteen (Hamparian, 1987). As a result, the law has little control over juvenile crime and there is much recidivism. This situation could be ameliorated without the use of additional scarce resources by redefining the age at which offenders are treated as adults to, say 16, or lower yet if it is politically feasible. According to Siegel and Senna [1991, p. 418], numerous authorities in the field believe that most youths over the age of 14 can be held accountable for their own actions.

All regulations require enforcement if they are to be effective. While this is a rather obvious point, much research proceeds as if somehow regulations are self-enforcing. The present paper illustrates the advantage of recognizing the role of enforcement costs in the selection of statute stringency. In most contexts, those setting standards (the legislature) rarely consider enforcement efforts, perhaps tacitly assuming full compliance. The failure to consider enforcement costs in statute writing may be regarded as an institutional inefficiency that may be a result of the formal separation from the legislative policing units.

This paper is an extension of analysis by Becker [1968] of optimal trade-offs between fines and real resource-using enforcement efforts. This analysis has particular relevance to statutes, as well, since one may well be able to reduce the number of crimes, especially