The Role Of Management Accounting and It's Implementation In The Public Sector

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Many definitions of management accounting exist, and although these lack of complete agreement, it is possible to say that management accounting plays important roles in an organization. Particularly, it plays in the managerial tasks of planning, controlling, and decision-making. All organizations need to make decisions and need to plan and control their activities, and all organizations, whether they be in the private or the public sector, ought to be able to benefit from the use of such management accounting techniques. However, the management accounting literature and the development of the techniques of management accounting are almost exclusively concerned with a private sector environment. Little discussions are placed on the public sector environment. For this reason, the purpose of this paper is to discuss the role and operation of management accounting in the public sector. In so doing, this paper, firstly, discusses the role of management accounting in an organization, then, the role and operation of management accounting in the public sector. After that, in order to give a comparison between theory and practice, this paper describes the actual practice of the role and operation of management accounting in the New South Wales Department of Education as an illustration. Furthermore, such evaluation of management accounting practices in the public sector are discussed; and finally, summary and conclusion

Introoduction

MANAGEMENT accounting is designed, first, to supply information to internal decision makers of a given organization, second, to facilitate their decision making, third, to motivate their actions and behavior in a desirable direction and, finally, to promote the efficiency of the organization (Belkaoui, 1980; Hansen and Mowen, 1997. P. 2). This statement is general objectives of management accounting, and these objectives are not intended to a specific business environment whether private or public sectors. From such literatures and text books it has been recognized that management functions involve planning, coordinating (or organizing), controlling, and evaluating such activities within an organizations. Also, accounting is a process of recording, measuring, summarizing all events that have happened in an organization (Hansen and Mowen, 1997). These events, eventually, are reported in the form of quantitative information to managers in order to help them in making economic decisions. Therefore, the objectives of management accounting described above cannot be separated from the role of accounting in management.

The management processes include several activities, and most of these activities are directly centered on planning for the future and controlling current operations. Accounting's contribution to these processes is the domain of management accounting. Thus, management accounting in an organization plays significant roles to assist management in several ways as stated by Gordon and Shillinglaw (1973, pp. 11-12) that:

> *" (1) it serves as a vital source of data for management planning, (2) it provides a cadre of trained personnel to assist management in the analysis of alternatives and in the preparation of plans, (3) it provides a mean of communicating management plans upward, downward, and outward through the organization, (4) it supplies feedback reports for both attention-getting and scorecard-keeping purposes, and (5) it has a role to play in the interpretation of results ".*

From this statement, it infers that the role of management accounting in an organization is to provide useful data for management in order to assist them in doing management functions. There has been recognized that all organizations need to make decisions and need to make plan and control their activities, and all organizations, whether they be in the public or private sector, ought therefore to be able to benefit from the use of management accounting. However, the management accounting literature and the development of the techniques of management accounting are almost exclusively concerned with a private sector environment so that the discussion of many articles and literatures are emphasized on the role and operation of management accounting in private sectors. Little emphasize is placed on the discussion of the application of management accounting techniques in the public sector. For these reasons, the purpose of this paper is to discuss and to evaluate the role of management accounting in the public sector, particularly in the New South Wales Department of Education as an illustration.

In so doing, the discussion of this paper is divided into six topics discussion. These are ; (1) key assumption of the terms used in this paper, (2) the objective of management accounting in an organization, (3) the role and operation of management accounting in the public sector, (4) management accounting practices in the New South Wales Department of Education, (5) evaluation of management accounting practices in the public sector, and (6) summary and conclusion.

I. Key Assumtion Of The Terms

The term 'management accounting' has been widely defined by many authors. For an example, Nelson and Miller (1981), and Bromwich (1988) define the term management accounting as described below. Nelson and Miller (1981) states that the term ' management accounting ' consists of two words, that is, management and accounting. According to them, management is " the process of achieving the best use of the resources placed at the disposal of the manager "(1981, p. 1). Whereas the ' accounting ' is defined as " a service activity which provides quantitative information, primarily financial in nature, about economic entities that is intended to be useful in making economic decisions " (1981, p. 4). Thus, the term management accounting defined by Nelson and Miller is the process of achieving the best use of the resource by using quantitative information about economic activities of a firm in which the manager involves.

Bromwich (1988) defines the term management accounting as "the process of identification, measurement, accumulation, analysis, preparation, interpretation, and communication of information (both financial and operating) used by management to plan, evaluate, and control within an organization and to assure use of and accountability of its resources " (p. 27).

From the two definitions above, it can be said that management accounting is the process in which accounting information is used by management to plan, evaluate, and control activities within an organization. Therefore, it can be concluded that management accounting involves providing information that is useful for management in making planning for the future activities, controlling current operations, and evaluating past performances.

The term budget, according to Henley et al. (1989, p. 48) derives from the Old French word, 'bougette', a kind of leather bag, in which during the Middle Ages the Chancellor of theExchequer took his tax proposal papers into Parliament. The tradition still continues in the annual display before television cameras of the Chancellor's dispatch case on Budget Day. In this paper, the term budget is defined as " the process of measuring and converting plans for the use of real (i.e. physical) resources into financial value " (Henley et al., 1989, p. 47). Hansen and Mowen (1997) defined budget as financial plans for the future.

II. The Objective of Management Accounting In An Organization

The objective of management accounting in an organization concerns to the role of accounting information to assist management to fulfill organizational objectives. Horngrèn and Foster (1987), Johnson and Kaplan (1987), and Wilson and Chua (1988) proposed such arguments relating to the objectives of management accounting in an organization. Horngren and Foster (1987, p.2) argue that the purposes of management accounting system include " the identification, measurement, accumulation, analysis, preparation, interpretation, and communication of information to assist managers to fulfill organizational objectives ".

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Johnson and Kaplan (1987) provide a more detailed description of the purposes of management accounting. These are :

1. To provide timely and accurate information to facilitate efforts to control costs, tomeasure and improve pro-

ductivity, and device improved production processes.
2. To report accurate product costs for pricing and product decisions.
3. To motivate and evaluate managerial performance.
4. To provide a vital two way communication link between managers at different levels of the organization.

Whereas Wilson and Chua (1988) argue that the primary objective of management accounting is to help managers to achieve organizational control and effectiveness. This includes control over production processes, control over costs, and control over the various segments and managerial activities within an organization. The term control, in this context, is intended to what Anthony (1965) described as 'management control' and 'operational control'. According to him, management control is the process by which managers assure that resources are obtained and used effectively and efficiently in the accomplishment of the organization's objectives. Whereas operational ocntrol is the process of assuring that specific tasks were carried out effectively and efficiently.

From such arguments above, it infers that the objective of management accounting concerns with the role of accounting system to provide relevant information to assist management to fulfill organizational activities. These include identifying goals, then planning and controlling organizational activities, and evaluating managerial performance.

The more detailed statement of the objectives of management accounting in an organization is provided by the 1972 American Accounting Association Committee on Courses in Managerial Accounting as follow (1972, pp. 6-7) :

" 1. Management accounting should be related to the planning functions of the managers. This involves (a) goal identification, and (b) planning for optimal resource flows and their measurement. 2. Management accounting should be related to organizational problem areas. This includes (a) relating the structure of the firm to its goals, (b) installing and maintaining an effective communication and reporting system, (c) measuring existing resources uses, discovering exceptional performance, and identifying causal factors of such exceptions. 3. Management accounting should be related to the management control function. This includes (a) determining economic characteristics of appropriate performance areas which are significant in terms of overall goals, (b) aiding to motivate desirable individual performance, and (c) highlighting performance measures. 4. Management accounting should be related to operating systems management, by function, product, project, or other segmentation of operations. This involves (a) measurement of relevant cost input and/or revenue or statistical measures of outputs, and (b) communication of appropriate data, of essentially economic character, to critical personnel on a timely basis ".

By referring to the statement of the 1972 AAA Committee on Courses in Managerial Accounting above, it is clear that the objectives of management accounting in an organization are complex and all objectives relate to management functions such as planning, organizing, controlling, and evaluating.

Based on the discussion in this section, it can be summarized that the objective of management accounting in an organization cannot be separated from the role of management accounting itself, that is, to provide relevant information in order to assist management functions such as planning, coordinating (or organizing), controlling, and evaluating organizational activities. Many articles and literatures have discussed the role of management accounting in private sectors, and most of these discussions are exclusively concerned with a private sector environment in which it can be assumed that organizational objectives are determinable and achievements against objectives are measurable (Jones and Pendlebury, 1989).

This condition, in fact, is different from those if such management accounting techniques applied in the public sector. Therefore, the following section will discuss the role of management accounting in the public sector.

III. The Role and Operation of Management Accounting In The Public Sector

As stated in the previous discussion that management accounting serves managers in many ways to facilitate them to do such management processes. These processes include several activities, and most of these activities are directly centered on planning for the future and controlling current operations. Planning means " the selecting of objectives and the means for their attainment, and controlling means adherence to plans through action and evaluation " (Horngren, 1970, p. 6). Similar to Horngren, Ferguson and Drebin (1985, p. 62) also state that " planning involves setting goals and objectives, and selecting programs to achieve them ". They also state that control in organization is necessary to ensure that directions are followed and objectives are reached.

In the public sector, the role and operation of management accounting is primarily concerned on providing information useful for planning and controlling managerial activities. Drebin et al. (1981, p. 110) state that two of five objectives of accounting in governmental units that can be classified as management accounting's roles are :

> *"(1) To provide information useful for planning and budgeting, and for predicting the impact of the acquisition and allocation of resources on the achievement of operational objectives, and (2) To provide information useful for evaluating managerial and organizational performance ".*

In public sectors, planning includes setting goals and objectives and selecting programs of each departmental unit, then, these programs are presented in the budget form. Therefore, the budget is of special significance in governmental units, and it is a planning device which is developed through inputs of many interested parties (Drebin et al., 1981). Whereas controlling includes evaluation of managerial activities whether such resources of expenditures are obtained and used effectively and efficiently, and whether such programs have been carried out effectively and efficiently. Efficiency, in this context, is defined as " the relationship achieved between the outputs of a service or activity and the volume or value of inputs consumed in generating those outputs " (Henley et al., 1989, p. 39). While effectiveness relates to the degree of success or failure atained in meeting objectives, and it relates to the outcomes achieved.

Problems that might be faced by governmental units in applying management accounting techniques are : (1) management accounting tends mainly to be restricted to budget preparation and budgetary control, with the purpose of ensuring budgetary compliance; and (2) management accounting tends to record inputs only and to ignore outputs. As a result, there is no readily measurable outputs so that government units usually lack of performance measurement, and (3) because of lack of performance measurement, the public sector managers do not know exactly what their objectives are and what is expected to them, except to compliance with budget, to meet with budget, or to maximize budget allocation (Jones and Pendlebury, 1989). On other words, most of the public sector objectives are ambiguous. Because of these reasons, the foregoing discussion in this section will be emphasized on (a) management accounting and budgeting in public sectors, and (b) accountability and managerial performance.

a. Management Accounting and Budgeting.

Every organization needs a device to control its activities and its financial conditions. This organization also wants to secure a sound financial management over one and more periods. In public sector, particularly in local government unit, one of the principal means of securing sound financial management is through the annual budget process. Jones and Pendlebury (1989, p. 13) state that " most of the authoritative reference works in local government recognize the importance of the budget ". Specifically, Marshall (1974, p.73) also states that :

> *" Local government would be unworkable without the annual budget, the center piece of the financial year. All departments and most officers participate in its making; and most abide by its contents. It is the most pervasive financial activity...Legally its purpose is to fix the rate; managerially it is both a decision making and a control document ".*

By referring to the statement above, it infers that budget in governmental units has important role in planning and operation of local government units or public sectors. It has been known that budget is one of management accounting techniques, particularly as both planning and controlling systems. Moreover, Crossman (1958) states that the main principal tool of management accounting is budget. Because of this, the following discussion will be emphasized on the nature and operation of budgetary system in governmental units. Traditional budgeting in public sectors (or governmental units) is designed mainly to aid the allocation of funds and to monitoring and control of expenditure against allocations and uses approved by central government. The basic principles and operations of budgeting, essentially, are the same with the private sector. However, it is interesting to note that budgets in public sectors can be classified as " fixed budgets, i.e. allocations of money as a maximum limit to spending on specific categories of resources over a given period of time " (Henley et al., 1989). It is said as fixed budget because the amount of items in the budget represents fixed appropriation up to the end of budget year. For example, the amount of revenue generated by a department has no effect on its permitted expenditure. The budgets in public sectors provide the essential link between management planning and management control. They are as a statement that expresses future plans in financial terms, they become firm (or department) commitment for which funds have been allocated. They also provide a basis for evaluating performance by comparing budgeted items and actual achievements of each item.

The type of budget in public sectors is usually called as the line-item budgeting (Henley et al.,1989). This kind of budgeting simply provides one line of information for each kind (or subject) of income and expenditure. On the income side of the budget government grants, government funds, and fees for services rendered are the main items; while on the expenditure side salaries, maintenance, and other running expenses are the main items. As departments have grown bigger and managerially more complex, line items budgets have been subdivided between the different managerial parts of the organization. This subdivision can be done on the basis either of the operational sub-units or of the particular professions or functions where department leadership and control are centered. Glynn (1987, p.43) argue that the line-item budgeting is generally adopted by governmental units because :

> *"(1). It is an ideal mechanism for limiting expenditure to the amounts and to the items voted in the appropriations. (2). It provides flexibility when across-the-board cuts have to be made for macroeconomic purposes. (3). It is a fairly uncomplicated system that avoids any conflicts about objectives and the methods of achieving them, particularly when budget preparation follows a tight timetable. (4). It is adaptable, so its supporters claim, to all economic situations ".*

Another characteristics of public sector budgets is they are as annual budgets. It means that the period of budget cover only one year since such appropriations of items or programs cover only one year. This annual budget allows the public sector managers to make such revisions of programs and addition of new programs every year. At the end of budget period, the public sector managers should make reports of activities and achievement of programs as their accountability to central government.

b. Accountability and Managerial Performance.

Having set up the annual budget, each governmental unit should responsible to central government about the implementation of budgeted programs or activities. In the reporting of its activities, the governmental unit makes an annual report which consists of achievements reports whether these achievements are over or under target, and it also consists of financial reports. This annual report, especially financial report, becomes a key element in the accountability of public sector or government bodies. Henley et al. (1989) state that the objectives and functions of public sector financial reports are :

> *"(1). To provide authorities and users with the assurance that there has been compliance with legal and other mandatory requirements in the organization's use of resources (2). To monitor performance and evaluate management (3). To provide the basis for planning future policy and activities (4). To provide supporting information for further funds to be authorized".*

Henley et al. (1989, pp. 11-14) state also that the users of public sector financial reports include :

> *"(a) elected members, either as individuals or collectivity; (b) the public as voters and/or taxpayers; (c) the customers or clients; (d) the management; (e) employees; (f) government; (g) competitors; (h) lenders; (i) donors or sponsors; and (j) other pressure groups".*

Accountability in public sectors through the annual report is centered on disclosure of plans, achievements of objectives, and source and application of funds.

In relation to managerial performance, emphasis of performance measurement is placed on the assessment of plans. While the focus in the private sector is on trends of profit, the emphasis of performance measurement in the public sector is much more on achievement of objectives and on performance against budget, and little emphasis is placed on the quality and quantity of service provided. This becomes a basis for measuring managerial performance.

From the discussions above, it can be said that the role and operation of management accounting in the public sector have specific characteristics which are differ from those in the private sector. The actual practice of management accounting in the public sector will be discussed in the following section.

IV. Management Accounting Practices In The New South Wales Departement Of Education

Having generally discussed the role and operation of management accounting in public sectors, as a comparison, this section will describe the actual role and operation of management accounting in the specific governmental unit, that is, the New South Wales (NSW) Department of Education.

As discussed earlier that one of the characteristics of public sectors is that objectives are often stated in the broad term. For example, in the NSW Department of Education, the basic objective is to provide education. This objective is consistent with the main objectives of the Education and Public Instruction Act 1987 together with the Education and Public Instruction (Amendment) Act 1987 as follow :

> *"(1) to provide for education in State schools, (2) to provide for the registration of other schools, (3) to provide for the granting of*

School Certificates and Higher School Certificates, and (4) to constitute a Board of Secondary Education and to define its functions".

From the objectives above, in short, it can be said that the objectives of the department is to provide education for people. In relation to the budgetary system in the NSW Department of Education, its budget characteristic is the same as discussed in the previous section that budgets in public sectors are usually characterized by the line-item budgeting. The line-item budgeting provides one line information about sources of funds or income and applications of funds. Therefore, in this department, on the revenue side of its budget consists of the following main items such as : fees for services rendered, Miscellaneous services rendered, Commonwealth specific grants, government initiative Funds, and so on. Whereas on the expenditure side consists of the following payments such as : salaries and other employee costs, maintenance and working expenses, plant and equipment, capital works and services, and so on. Therefore, the form and content of department's budget represent the amount of items that have been appropriated.

Since the department is a large organization, line items budgets have been subdivided between the different managerial activities of the organization. This subdivision can be done on the basis of education programs such as :

"(a) preschool education programs, (b) general primary school education programs, (c) education of children with disabilities in government primary schools programs, (d) direct state government assistance to non-government primary schools and pupils programs, and (e) general secondary education in government schools programs".

Furthermore, at the end of budget period, a report of budgets achievements is provided. This report represent targeted items or programs, the targets that can be reached by the end of budget period (one year period), and the progress towards achievement of these targets. Then, the result for each target is indicated by the following symbols such as : above target (**), target achieved (*), and target deferred (   ).

In relation to management control system, in 1997, the department began to devolve some centralized functions to functional and regional directorates. These are (a) finance directorate, (b) administrative directorate, (c) personnel directorate, and (d) studies directorate.

Accountability in the NSW department of education is represented by the annual report. Each school (i.e. preschools, primary schools, and secondary schools) is required to provide an annual report of the school's achievements, operations, and future directions. The purpose of the report is to supply information about the school to the community which it serves while at the same time providing information for inspectors, regional directors, and head office. Schools are expected to report on curriculum and programs, student achievement, student welfare and discipline, organization and leadership, staff development and welfare, community relations and participation, and financial matters as well as specific initiatives which have been undertaken by the school during the year to meet the identified needs of student. Annual reports from schools provide valuable information to the Department and the community and provide the basis for ongoing planning by the principal, school staff, and the community. The information in annual reports is also used to measure efficiency and performance of schools. Efficiency in the NSW Department of Education is measured by comparing or analyzing between the outputs of a service or activity (i.e. the number of students taught and examined) and the volume or value of inputs consumed (i.e. teaching time, books, materials, space and heating, etc.).Whereas efffectiveness is measured by analysisng the number of students passing the exam and grades of students' exam results. Effectiveness is also measured by comparing the number of graduated students and the number of students employed by firms and industries.

V. Evaluation of Mangement Accounting Practices in The Public Sector

Having discussed the role and operation of management accounting in the public sector in general, and the management accounting practice in the NSW Department of Education, in particular; this section will discuss the evaluation of the discussions above.

As stated before that one of the characteristics of public sector is objectives are often ambiguous (Pendlebury, 1989). It means that, generally, the objectives are stated in broad terms as the objectives of NSW Department of Education, i.e. to provide education for people, to enable students to pass exam, and so on. These objectives seem unambiguous, but they are framed in very broad and imprecise terms in which accomplishments seem difficult to measure, and these objectives also might overlap.

In budget areas, the general type of budget in public sectors is the line-item budgeting. In spite of the fact that the line-item budgeting has several advantages as discussed in the previous section, according to Jones and Pendlebury (1984, p. 130), it has such defects are as follow :

> *"(1). The budget is sub-divided on the basis of department or activity centers, each of which may operate several programs either individually or as joint ventures. (2). It is usually drawn up on an annual basis by comparing the previous year's expenditure and adding increments, or perhaps decrements. (3). There is natural tendency, when dealing with inputs on an incremental basis, to favor existing programs. New programs have to compete with each other for limited resources, regardless of their priority. (4). Control is primarily exercised on the budget inputs rather than its outputs. That is, it provides data on what government consumes rather than data about what government does or about the purposes for which money is spent".*

From the such defections above, it can be summarized that the line-item budgeting is primary concern on the budget inputs, this is because the type of budgeting is simply a system for allocating, or rationing, particular kinds of inputs. These input allocations are not related in any way to the intended outputs or outcomes. Furthermore, this budget does not provide information or motivation greatly helpful to managerial efficiency and performance accountability at the local level (Henley et al., 1989). Shand (1984) states also that there are many criticisms of the budgetary system in the public sector. Such criticisms are addressed to the budgetary appropriation system, budgetarycontrol system, and reward system. Criticisms of the appropriation system includes :

> *"(1). The appropriation authority is an authority to spend cash, not to incur obligations or costs (2). Appropriation authority does not become legally effective until the appropriation is passed by central government or Parliament several months into the financial year. (3). Most appropriations are calculated without provision for inflation. There is provision for supplementation but this is tightly controlled by the Minister of Finance. (4). The one-year appropriation system creates uncertainty in departmental managers as to future funding levels, and therefore makes adequate planning within organizations difficult ".*

While criticism of the budgetary control system include :

> *"(1) control is exercised over both individual items and the total departmental appropriation. That is underspending on one item creates no rights to exceed another item by a corresponding amount, (2) transfers of approrpiation authority between items are possible but require the approval of the Minister for Finance, and (3) a system of control over certain financial commitments exists, but separate from the budgetary system."*

Furthermore, Shand criticizes that there is no specific or identifiable rewards for departmental management for under-expenditure nor sanctions for over-expenditure.

In relation to managerial performance, there is no formal systems of performance measurement. Managers or heads of departments do not clearly understand the basis on which they are to be evaluated. Unlike in the private sector where output can be measured (e.g. profit or net income) and there is standard cost system which provides information to measure efficiency, therefore, managers understand the basis of evaluation. In the public sector, since outputs are difficult to measure and objectives often ambiguous so that managers of department do not know what their objectives are (except to achieve the budget target), or what is expected to them. Information in financial reports provides users with very little information relevant to efficiency measurement. Most of the data presented in financial reports show the comparison between actual and budgeted revenues and expenditures.

From such evaluations above it

can be said that the application of management accounting techniques, i.e. budgetary system, control system, and performance evaluation system, in the public sector is far from complete as those in the private sector. It means that there are many defects or weaknesses in applying such management accounting techniques in the public sector due to its nature. Therefore, such improvements are needed. For example, the Financial Management Improvement Program (FMIP) suggests the way to make better management accounting system in the public sector. The FMIP (1984, p. 3.1.3) states that " to achieve improvements in resource use (or in efficiency), programs and activities must be managed against clearly defined goals and objectives ". Thus, the clarification of goals and objectives is the first step in improving management of a public sector organization. The later steps are an organizational unit should has : strong program management, an organizational structure which clearly allocates responsibility for programs and functions, an adequate information system to provide managers with appropriate, accurate and timely information, and an evaluation capacity to enable management to regularly review all aspects of the organization's program performance.

In relation to performance indicators, Shand (1989) states that governmental units should have such performance indicators since performance indicators are " an essential part of the monitoring of programs " (p. 12). He states also that performance indicators : " (a) must be homogeneous; (b) should not be influenced by factors other than the performance of the organization being evaluated; (c) should not have dysfunctional consequences; and (d) should use the output information that can be collected at a reasonable cost ".

VI. Summary and Conclusion

All managers in organizations, whether they be in the private or public sector, need a system to help them to do such managerial functions such as planning, organizing, controlling, and evaluating. This device is management accounting system (or management accounting) because it plays important roles in the managerial jobs of planning, coordinating, controlling, and decision-making (Pendlebury, 1989). In the public sector, the most commonly used of management accounting techniques are budget and budgetary control systems.

The application of management accounting in the public sector ideally should be the same as those in the private sector. But, practically, there are many differences due to the nature of the public sector in which the vast bulk of expenditure is on services for which objectives can only be agreed upon if they are framed in very broad and imprecise terms and in which accomplishments are difficult to measure (Jones and Pendlebury, 1989).

From overall discussions in this paper, it can be concluded that the role and operation of management accounting in the public sector have far from clear. It means that several defects or weaknesses still exist in applying such management accounting techniques. These become our challenge, as accountant, to participate in the improvement of alternative techniques for the application of management accounting in the public sector.

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