

**THE IMPACT OF THE MODIFIED BUDGETING SYSTEMS (MBS) ON  
PERFORMANCE MEASUREMENT IN MALAYSIAN CENTRAL GOVERNMENT  
ORGANISATIONS**

YUSUF KARBHARI AND MUSLIM HAR SANI MOHAMAD\*

\* The authors are respectively from Cardiff University, UK and International Islamic University Malaysia, Kuala Lumpur.

**Address for correspondence:** Muslim Har Sani Mohamad, A301, DOA, KENMS, International Islamic University Malaysia, Jalan Gombak, 53100 Kuala Lumpur, Malaysia.

Phone: 006-03-6196-4695

E-mail: [muslimh@iiu.edu.my](mailto:muslimh@iiu.edu.my)

**Abstract**

The introduction of the Modified Budgeting System (MBS) as one of the New Public Financial Management (NPFM) tools to bring the efficiency of private sector into Malaysian government organisations had its implication on these organisations' performance measurement systems. Therefore, by obtaining perceptions of the senior managers in the civil services who experienced the reform, this study examines the impact of the Modified Budgeting System (MBS) had on performance measurement practice in Malaysian central government organisations. Specifically, the respondents were asked about the impact of the MBS on improving output based performance measurement, linkage between inputs and outputs, and developing own output measures. This study also examines who are the stakeholders consulted to develop performance measures and the level of importance that civil service' managers attach to different types of performance indicators covering both financial and non financial indicators. The study found that generally the respondents agreed that the MBS had improved performance measurement in their organisations, and civil service managers attached more importance on customer related measures than efficiency indicators. Despite of these, weaknesses in implementation was mainly related to resistance to change by managers, thus, this might impede the effective development of the performance measures.

**Keywords:** New Public Management (NPM); Developing Country; Performance Measurement; Malaysian Central Government Organisations

(The paper was presented at Performance Measurement and Control Conference, Nice, France, Sept 26-28, 2007)

## INTRODUCTION

The increasing importance of performance measurement in public sector for the past two decades was the results of the call for greater accountability and performance in public sector organisations (Hood, 1995; Pollitt and Bouckcart, 2000; Hyndman and Eden, 2001). Introducing private sector management techniques into public sector spheres was not unique to government in developed countries. Various governments in developing countries made similar attempts to improve their service delivery systems (Minogue et al., 1998; Polidano, 1999; Manning, 2001). One means of achieving this is through the change of performance measurement system to capture result based information for planning, control, decision making and tightening up accountability (Hyndman and Eden, 2002).

In Malaysian central government, the Modified Budgeting System (MBS) is viewed as a significant attempt to introduce output and results based performance measurement system. This specifically matches the requirement of the reform architects' aim to make civil servants accountable for productivity in terms of costs and results (Abdul Hamid, 1995). With its 'Lets managers manage' principle and customer orientation, each spending organisation was required to set output-based performance target indicators included in the Programme Agreement as a performance contract with the Treasury (Malaysian Treasury, 1994).

Although a significant amount of research on the impact of the New Public Management on performance measurement in governments in developed countries during the 1990s, similar empirical studies in government of emerging economies are still limited. Therefore, the principal aim of this study is to provide useful insights into the impact of the Modified Budgeting System (MBS) had on shifting traditional mainly input based performance measurement system to the NPM-like results based performance measurement in Malaysian central government organisations. This was addressed by obtaining perceptions of the senior managers in the Central Government Organisations on the overall impact of the MBS on improving output based performance measurement, linkage between inputs and outputs, and developing own output measures. In addition, this study also examines who are the stakeholders consulted to develop performance measures and the level of importance that civil service managers attached to different types of output based performance indicators. Inspired by the findings of the previous studies (see for example, Pendlbury et. al., 1994; Brignall and Modell, 2000; Hyndman and Eden, 2001), that their dominant stakeholders have significantly influenced importance of performance measures attached by civil service managers working in the organisations. As the MBS's emphases on focusing to meet customer needs, it would have been expected that civil service managers should give more importance to customer based performance indicator over other indicators.

Therefore, the paper is organised as follows. In the following section, a detailed discussion on literature relating to performance measurement in public sector world wide will be given. Then, the role of the MBS to introduce result based performance indicators will be discussed. Following the description of research methodology, the results and analysis of questionnaire and interview surveys are provided. The final section of this paper presents some conclusions.

## LITERATURE REVIEW

With greater autonomy to civil servants to manage, the increased focus on the customer of the services, the increased use of competition and contractual relationships within the public sector organisations have led to a growth in the use of performance measures (Pallot, 1999; Pollitt and Bouckcart, 2000; Sanderson, 2001). Specifically, the greater use of performance indicators in the civil services as they have become tools for control by central government over decentralised agencies (Sanderson, 2001). In the context of New Public Management (NPM), the importance of performance indicators is to enhance the accountability of devolved public sector organisations, in that it emphasises output and results-based performance measures (Likierman, 1993; Smith, 1993; Hood, 1995; Sanderson, 2001). The previous emphasis was based on compliance with laws, rules and regulations focusing on inputs and process orientation (Romzek, 2000). With contemporary government reforms seek to shift the emphasis of performance measurement in public services from process to output and outcomes, examples of results-oriented indicators included efficiency indicators (measures of the input/output relationship – i.e. cost per unit of output), effectiveness indicators were measures of the degree of achievement of the programme's objective, and cost effectiveness indicators measured unit cost of outcome (Alford and Baird, 1997).

With the shift towards results based accountability in public sector, performance measurement should also promote improvement in performance. Hyndman and Eden (2001) found, from their study of nine Executive Agencies in Northern Ireland, that the objectives of improving management and providing greater accountability were equally important. They reported the use of targets was viewed as extremely valuable in communicating to individuals, eliciting commitment to the organisational goals, and in improving the focus of individual teams within the organisation. The Chief Executives of these agencies identified a natural link between improving management and greater accountability. Nevertheless, Halachmi (2002) suggested there is a need for two separate schemes of performance measures, one to serve the purposes of accountability, and the other to serve greater performance. She argued that performance measures to improve accountability discourage managers of public services from deviating from approved plans, at the expense of the public interest. The use of performance measurement as a form of control may prevent managers from learning. An imposed system of accountability discourages managers from confronting failure and learning from it (Sinclair, 1995). As argued by Smith (1993), excessive use of output-based performance indicators might lead to dysfunctional behaviour in public sector management.

Drawing from stakeholder perspectives, performance measurement system should enable government organisations to address the concerns and needs of multiple stakeholders (Modell, 2003; Pollanen, 2005). The unique development of performance measurement initiatives in public sector organisations is that performance measures are imposed by the central agencies as part of the accountability requirements rather than developed from competitive pressure to perform. Therefore, the issue of usefulness of these measures arise. Do these measures develop to meet accountability compliance or for performance? Besides examining the usage of the relevant measures, previous studies also examined the level of importance that managers attach to each type of performance measures (can be financial or non-financial measures). Interestingly, as these measures were developed to address the interest of different stakeholders, the level of importance that managers to any of the

indicators reflects the importance of the stakeholders to the organisations over the others. The following empirical studies highlight this tension.

In the study by Hyndman and Eden (2001), they found the importance of different types of targets was being prioritised based on the priority of parent departments. The types of these targets were financial targets (i.e. live within budget), volume targets (i.e. number of cases handled), efficiency targets (i.e. cost per vehicle tested, cases handled per employee), and quality targets (i.e. waiting times). The parent department viewed certain financial targets as being essential. The agency would then prioritise the same targets. A similar finding was found by Brignall and Modell (2000). They suggested that the interplay of the pressures from a government organisation's major stakeholders (funding authorities, professional employees and contracting purchasers of services) should make the management prioritise different types of indicators over others (i.e. financial indicators over quality indicators). An earlier, similar finding by Carter and Greer (1993, p. 414) was that performance indicators became political instruments, mediating the complex relationship between the parent ministry and agencies, as they are central for resource allocation to the agencies. In short, as McKeivitt and Lawton (1996) indicate, it may be unrealistic to expect any system of performance measurement to satisfy the interests of all stakeholders: the interests of the more powerful stakeholders are likely to dominate. It seems to suggest that the important performance measures attached by the managers in public sector organisations may suggest which different stakeholders are dominant. Clatworthy and Mellett (1997) pointed out the difficulty faced by managers in health care to balance two seemingly contradictory performance targets for different stakeholders: operational targets (published in league tables for customers) and financial targets (published in annual reports for trust members).

### **THE MODIFIED BUDGETING SYSTEM (MBS) AND PERFORMANCE MEASUREMENT**

The emphasis on result based accountability had become increasingly central to Malaysia's public sector organisations (Shafie, 1996). For instance, reform initiatives introduced by the Malaysian Prime Ministry Department such as the Productivity Improvement Initiative, Total Quality Management (TQM), and ISO 9000 certification programmes should lead the government bodies to set up a comprehensive performance measurement system (CPMS) to assist civil servants in achieving operational effectiveness and strategic objectives. On top of these developments, the Modified Budgeting System (MBS) was seen as an attempt by the Malaysian Treasury to extend the existing infrastructure of the performance measurement system to be at par with the New Public Management initiatives in many governments in developed nations.

In year 1990, as a result of knowledge sharing with the Australian government, the MBS was introduced in the pilot organisations (i.e Public Work Department, Ministry of Health) to test the new system (Xavier, 1996). In year 1996, after showing positive impact in the pilot organisations, the Treasury decided the new budget system to be implemented in all central government bodies including Ministries, Departments and Statutory Bodies (Malaysian Treasury, 2001). The MBS reflects the Treasury's approach to address the weakness of the existing financial management approaches and procedures such as problems of incremental budgeting and gaming was through incorporating the New Public Management features. The Malaysian Treasury developed the MBS to be a managerial tool for managers and to tighten accountability of civil servants through the performance contract mechanism. Both of these dimensions have impact on the development of the performance

measurement systems. The idea of the MBS as managerial tool was highlighted by the Treasury because of its strategic orientation, customer focus and greater involvement of top management in resource allocation.

Strategic orientation of the MBS should lead the government organisations to reassess their programmes and activities to be consistent with organisational objectives, which in turn the programme structure must promote greater understanding of relationships between outputs and results, and resources allocated. Or else, meaningful performance evaluation is difficult to make. In line with this, for each activity, customers and targets groups need to be properly defined and their needs and wants should be identified and updated. Therefore, the government organisations were encouraged to engage their customers in order to identify their needs and wants. In addition, the Treasury expected greater participation of the top management of the government organisations to ensure that public resources are allocated according to priority areas. Nevertheless, greater involvement of the top management into a budgeting process requires a cultural change. Willingness of top management of government bodies to comply with the treasury requirements remain to be seen. In the past, lack of top management involvement was due to the incremental nature of the budget and lack of strategic focus (Commonwealth, 1995).

The Treasury's attempt in improving result based accountability through the MBS was principally implemented with delegation of greater financial autonomy and flexibility from the Treasury to government organisations and then on to line managers and in return they need to achieve specified performance targets (Malaysian Treasury, 1988). This initiative manifested itself in the policy that has become widely known as the 'Let managers manage' policy. With delegation of budgetary autonomy to government organisations, the Treasury introduced Programme Agreement as performance contract mechanism to enhance the accountability of managers in government organisations. At the top management level, the Programme Agreement is a performance contract between them and the Treasury. As part of the overall NPM initiatives, a contractual approach to performance measurement and reporting requirements is argued to be able to strengthen accountability (OECD, 1995). Nevertheless, it could be argued that the performance contract between the Treasury and budget holders at the organisational level could only work if the Treasury were the most dominant stakeholder. Or else, it would promote coercive isomorphism as suggested by the NIS theorists. As discussed earlier, government organisations would give preference to the performance target that was the focus of the dominant stakeholders. Although the position of the Treasury in the hierarchy of dominant stakeholders remains to be investigated, the MBS's focus on customer orientation, strategic focus, freedom to manage and result based performance contract show at least the change in focus to serve customers as the main stakeholder better. These changes should provide the government organisations opportunities to challenge the traditional bureaucracy of obedient to Parent Ministries and elected politicians over other stakeholders.

The Programme Agreement provides details about the activities for which the budget allocation to be provided that include objectives of the activities, policy problems, customers analysis and amount of resource allocation. More importantly, budget holders should set in the Programme Agreement the output based performance targets that cover quantity, quality, timeliness, unit costs and outcome targets for each authorised activity (Malaysian Treasury, 2001, p. 31). Output quantity types are aimed at indicating the expected units of outputs to be provided in a given unit of performance measurement, such as the number of outputs per worker per day and the number of outputs per month. Quality of output indicators includes

quality surveys, level of customer complaints, level of acceptable errors, and the timeliness of services. Although timeliness is argued to be part of the quality indicators, it was specifically required for performance measures in the Programme Agreement as probably to ensure standardisation of practice across government organisations. Unit cost of output type of indicators is aimed at relating cost inputs to output of services.

Interestingly, the Treasury also requires government organisations to set outcome measures and targets. As it was widely asserted in the literature that outcome indicators are difficult to measure (Boston, 1993), the measurement of outcomes as required by the Treasury would either lead to mere mimicking or creating greater awareness amongst civil servants that they need to think beyond traditional performance parameters. Given the requirements of performance information, the MBS is supposed to cause a shift from mainly input/ process performance measurement to comprehensive results based performance culture emphasising both financial and non financial measures. In other words, government organisations should at least consider other non financial performance measures as equally important as the traditional performance measures based on budget and expenditure report. Hopefully, this would lead to benefits, such as a greater value for money and an improved link between the use of financial resources and their respective outputs.

Besides the above development, another feature of the MBS was Expenditure Target (ET) for each authorised activity under every budgeted programme. The ET was set as the budget ceiling, but the process of setting it was more interesting. The expenditure target (ET) is a budget ceiling for an on-going programme. As the Treasury arrives at the ET of an on-going programme by adjusting the previous year's allocation for "one offs" (extraordinary and non-recurrent expenditures provided in the previous year), this inherently gave signal to the budget holders to spend spree in the year end or else they would face budget cut in the subsequent year. Therefore, for managers to balance between developing savings, making effort for greater value for money and avoiding budget cut, these posed them a difficult challenge to make the MBS a valuable managerial tool.

## **RESEARCH OBJECTIVES AND DESIGN**

The aim of this study is to examine the impact of the MBS had had on performance measurement practice of the Malaysian government organisations. Therefore, the following pertinent issues were investigated: First, respondents were invited to respond to what extent the MBS had improved their organisations' results based performance measurement system, the linkage between inputs and outputs, and developing own outputs measures. These issues were investigated because the MBS was supposed to improve performance measurement system as part of its function as managerial tool and improving accountability. The impact of the MBS on overall performance measurement system is expected as the Treasury promoted the MBS to be managerial tools and to implement results based performance measures via Programme Agreement. Overview on the impact of the MBS had on improving relationship between inputs and outputs is essential because information on outputs and outcomes with the budget figures will improve performance assessment. Developing own output measures is considered as a significant development because managers in the organisations should be given the autonomy to select and choose performance measures that reflect their strategic and operational priorities, rather than be dictated by central agencies such as the Treasury and the Parent Ministries. Developing own output measures would also guarantee that performance measures selected are relevant for management's planning and control activities.

Second, the respondents were asked on who being consulted to select key performance indicators used in their organisations. This would help to identify various stakeholders involved in the performance measurement process. More importantly, the MBS was developed to improve strategic management of government bodies with customer emphasis, so, any move towards active role of customers is an indication of effectiveness of the reform initiative. Third, the respondents were invited to respond to the level of use and importance that they attached to specific financial and non-financial performance measures. With the implementation of the MBS, the Treasury required government organisations to establish result based performance measures with customer focus as dictated in the Programme Agreement. By asking them these questions, this would identify the relevance of these measures to the government organisations and the findings would also enable us to reach conclusion who are the important stakeholders of the government organisations. With the desire to improve value for money of the government allocation, it would be expected that the government organisations would place customers related performance indicators (i.e quality of output type) more important over other indicators.

To achieve the objectives of the study, perceptions of senior government servants from the central government organisation were sought using cross sectional survey with two main stages of data collection - questionnaire and interview surveys. The central government organisations selected in this study are Ministries, Departments and Statutory Bodies. Departments and Statutory Bodies are agencies under Ministries. While departments received budget allocation through Parent Ministries, Statutory Bodies are considered to have greater autonomy in management and financial matters (Othman, 2001). As suggested in the literature (ter Bogt, 1999, p. 335), an overall evaluation of the effectiveness of the reforms was considered appropriate because the financial reforms of the 1990s had been in place for more than 5 years by the time this study was conducted. Organisations to be selected for the study must have existed before the MBS was introduced. Considering this, a total of 131 organisations were selected for this study. They comprise of 24 Ministries, 72 Departments and 35 Statutory Bodies.

A questionnaire was issued to the named Chief Secretary for each Ministry, Director General for each Department and Chief Executives or General Manager for each Statutory Body. Recognising the risk of low response rate in developing countries particularly in government organisations, the questionnaire was personally sent and collected by the researcher to and from the organisations. Malaysian central government organisations are mainly concentrated in Kuala Lumpur and a neighbouring city, Putrajaya, except for organisations in distant places such as in different states where questionnaires were mailed out. 94 responses were received resulting in a usable response rate of 72%.

An analysis was undertaken of the status of employment of the individuals named as having completed the questionnaire and the results of this are reported in Table 1. The seniority of the respondents gives strong support of our belief that the responses provide an authoritative source of information on the issues raised. The respondents were also asked to state the period of employment as civil servants and the responses revealed that over 90% had more than 15 years civil service experience. The average length of the service was 23 years. Pendlebury and Karbhari (1997) argued that the seniority of respondents would indicate the stronger level of confidence about civil servants' perceptions on the impact of public sector reforms.

**[ Insert Table 1 here ]**

Our responses are dominated by civil servants who had experience of the provision of government services before and after the reform programmes being implemented. This fulfilled the assumption that those that filled in the questionnaire were holding the adequate experience to assess the changes that took place as a result of the reforms.

A series of interviews were also conducted after analysis of questionnaire survey responses. Two types of interviewees were selected: top management and line managers on account of their ability to provide information on the changes they had experienced as a result of the financial and managerial reforms. Of the 36 officers interviewed (17 were from Departments, 14 from Statutory Bodies and 5 from Ministries), almost all (97%) had 15 years experience or more as civil servants and their average length of service was about 24 years. The analysis of the interview survey was also conducted by taking into account New Institutional Sociology (NIS) perspective as it may provide better picture of what is happening in the Malaysian government organisations that were involved in the reform process.

## **RESULTS AND ANALYSIS**

### **The Overall Impact of the MBS on Measuring Output Based Performance Indicators**

The respondents were invited to indicate the level of improvement in the performance measurement activities that their organisations experienced with the implementation of the MBS on a scale ranging from 1 (significantly worsen), 2 (worsen), 3 (no change), 4 (moderate improve), to 5 (significantly improve). The analysis of the finding is reported in Table 2. The results of questionnaire survey revealed in table 2 shows an encouraging findings with majority of the respondents indicated that the MBS had improved these government organisations' performance measurement systems and progressed towards more aligned with the New Public Management (NPM). In another analysis by organisational status, although it did not reveal any significant differences in responses, it highlighted a noteworthy trend. The proportion of respondents from the Statutory Bodies perceived improvement in these three factors took place with the implementation of the MBS was higher (but not significantly so) than proportion of respondents from the Ministries and Departments. This finding seems to suggest that the likelihood of PMS improvement to take place is higher in Statutory Bodies than in Ministries and Departments. This seems to suggest that organisations with greater financial and operational autonomy would experience better improvement of performance measurement system from the centrally organised reform initiative.

**[Insert table 2 here]**

As analysis on the interview surveys responses revealed a moderate support for the questionnaire findings that the MBS had improved the performance measurement practice in their organisations with only 55% of the interviewees affirmed the improvement. Commenting on the overall impact of the MBS on performance management, a planning director in one of the medium sized Statutory Bodies remarked:

“With the MBS, every division prepares details of input and output performance targets for the performance agreement. They identify the outputs of their divisions. Then, they set



the targets. These are their responsibilities, managers of each division and state based on the allocation distributed to them.”

The interview surveys highlighted that the improvement due to the requirement of performance measures in the Programme Agreement. Interestingly, the majority of interviewees (60%) revealed that the use of the MBS's targets was new to their organisations. Besides increasing the standardization of types of performance measures used across government organisations, the MBS was considered as enhancing comprehensive performance measurement system that focuses on both financial and non financial measures. Thus, this would improve performance assessment capacity of the organisations. The comment of a senior planning director in a medium sized Statutory Body encapsulates this development caused by the MBS particularly well:

“Although we had our performance targets for our main activities prior to the introduction of the MBS, the new budgeting system improved the practice by introducing additional targets that we need to achieve.... The MBS make the performance measurement more systematic as targets are more comprehensive encompassing quality, timeliness and costs.”

Confirming similar benefits of the MBS on performance measurement, a deputy director of a medium sized Department pointed out that:

“The fact that the MBS requires us to develop both financial and non-financial indicators, this has improved the way we measure our performance”

The majority of managers recognised that the improved performance measurement entailed better management of resources to achieve the set targets. One administrative and finance director in a small Statutory Body pointed out that improved performance measures help management to focus their decision-making in order to achieve these targets.

Nevertheless, the improvement brought in by the MBS on performance measurements was not without glitch. The interview revealed that some managers provided excuses as though they should be absolved from these performance requirements. Although this study was not specifically undertaken to measure loose coupling in accounting practice, resistance to change amongst managers with their excuses did somehow reflect this scenario. This provided further challenge to develop relevant performance indicators for managerial purposes. This opposition is captured in the following comment from one top management officer:

“We don’t feel the necessity to make these measurements. For me, as long as there is no public outcry about our services, we are successful. In addition, I find that our managers do not rely on these measures for their work. Our performance is good as long as we can spend within the allocation given.”

Obviously, the implementation strategies should be revised to ensure greater acceptance of the reform initiative. Lack of acceptance by the managers would impede the development of the performance measurement. They would not be developed properly to ensure their efficacy. Highlighting the lack of usefulness of the performance indicators reported in the Programme Agreement for internal use, a senior planning director in a medium sized Statutory Body pointed out:

“Even though we are required to show our output indicators quantitatively, since we give them aggregated figures, they are not really any use to our managers. After all, for our decision-making, we don’t really depend on them... impact indicators... are heavily dependent on the perception of the managers concerned. . Thus, their impact on our operations is minimal...Nevertheless, we have to provide them to the Treasury, since we are required to.”

The resistance of managers could also be attributed by the accountability gap of the civil servants to their stakeholders. It could be argued that if performance measures required for reporting purposes do not match with their accountability requirements, the targets are likely to be ignored.

Another excuse to resist the MBS performance initiative was that the managers blaming the weaknesses in enforcing targets in Programme Agreement on the part of the Treasury. This had also adversely affected development of the performance measurement systems of government organisations. Although the managers were given the full discretion to select their performance measures, this was used as an excuse by them to blame the Treasury over lack of guidance on developing useful measures. Several managers interviewed that they expected a greater role of the Treasury in terms of advising and monitoring the performance measures and targets. Explaining this, a planning director in one of the medium sized Statutory Bodies pointed out:

“Every time we prepare the performance and exception reports... the monitoring is not enforced at the Treasury level. We are not properly advised about whether what we measured is right or wrong.”

Interviewees revealed that the weak enforcement by the Treasury was also due to the fact that their officials were not well versed in the details of operation in service delivery organisations. This had led top management in spending organisations to continuously use quantity targets that already existed even before the MBS. This result was consistent with the finding by Hyndman and Anderson (1997, p. 159) that without formal guidance, the managers relied heavily on examples that had been used in previous years, and there was little, if any, evaluation of their likely impact on management. This finding also appears that with resistance to change attitude of managers, the performance targets of the Programme Agreements are developed primarily for compliance, rather than for managerial use to improve performance. Apparently, the pressure put by the Treasury with this performance requirements only led to superficial change.

Resistance to change could also indicate the extent of changes that the Treasury could influence in government organisations. Revealing the weak role of the Treasury as one of the stakeholders, resistance to change may also mean that it is problematic for the Treasury to introduce a new form of accountability. Any change of accountability structure should have been done through other avenues such as either via legislative arm of the government or via head of the executive power, the Prime Minister. Another, as to induce the needs of results based measures amongst managers, this initiative should have been complimented with other quasi-market based reforms as to increase competitive environment in government organisations, thus for managers to focus on results based measures become more natural.

As the categories of performance measures were imposed on them rather than were based on the managerial needs, these indicators were developed for compliance purposes. The fact that the Treasury little involvement in the enforcement of the achieving the targets,

this provides the room for the managers to sideline the importance of these indicators. Nevertheless, the actions of the Treasury were justified because when they introduce this initiative was to provide the opportunity for government organisations to be more systematic in their performance assessment of their activities. But, the fact that it was not enforced and did not link to the managers' incentives packages might severely undermine the reforms. Despite of these limitations, some organisations did take advantage on the initiative as part of the organisational learning process.

Beside managers' resistance to change, the difficulty to measure outputs and results was also an obstacle for the organisations to capitalise the opportunity from the reform. To overcome this difficulty, government organisations sought to use processes based indicators. These targets were used for operations as well as for the agreement with the Treasury. In one medium sized Statutory Body, since not all of its activities had quantifiable outputs, it used processes based performance targets such as number of inspections per year, number of exhibitions per year, number of participants and number of talks per year.

### **Stakeholders role in the Development of Performance Indicators**

Second part of this study addresses the issue of development of performance measures should match with the needs of stakeholders. This was addressed by asking the respondents on parties consulted to select key performance indicators to be used in their organisations, and the level of importance attached to different types of performance indicators.

As highlighted in the literature, effective performance measurement system should take into account multidimensional features of performance indicators, because generally government organisations serve multiple stakeholders. In particular, to develop a complete set of performance indicators, all views from the stakeholders of the organisations must be taken into account, and this includes line managers, top management, the Parent Ministry, the Treasury and particularly the customers or the beneficiaries of the organisations. Therefore, the respondents were asked to indicate which parties they consulted in developing performance indicators in their organisations. The analysis of the result, including analysis by organisational status, operating environment and size is reported in Table 3.

**[Insert table 3 here]**

Table 3 displays that 70% of the respondents indicated that their organisations consulted both top management and line managers when deciding the type of performance indicators to be used. But, less than 30% of the respondents indicated that their organisations consulted the Parent Ministries, and the Treasury. This seems to indicate the monopoly position of government organisations in providing public services. The minimal role of the Treasury and the Parent Ministries on the selection of the type of performance indicators to be used indicates the high level of autonomy of the government organisations in this matter. Even though the Programme Agreement of the MBS with the Treasury requires spending organisations to set the targets of the required groups of performance indicators, these requirements are very broad and ambiguous, which gives virtually absolute freedom to the spending organisations to decide what indicators to use.

A fairly discouraging finding was related to the role of the customers in the selections of performance measures. Only 21% of the respondents indicated that the views of their customers were taken into account. Apparently, with these findings, the awareness to improve service delivery with customer focus was not fully developed in many government organisations. The views from customers are very important to give an accurate insight into the quality of the services provided by the organisations. In short, the above findings seem to suggest that the top management of the related organisations had failed to take advantage of the freedom to develop an effective performance measurement system as the failure to consult customers' views is recognised as leading to a deficient performance measurement system. Performance measurement systems that neglect the views of service users tend to contain few measures of relevance to management needs for effective service deliveries (McKevitt and Lawton, 1996, p. 53). These findings also consistent with the view of New Institutional Sociology theorists about that the main concern of the top management of the organisations in developing performance indicators is to comply with the Treasury's rules as a way to gain legitimacy of activities (coercive isomorphism) (Scapens, 2006) and requirements rather than to develop a system for greater performance.

### **Use and Importance of Financial and Non Financial Performance Measures**

This study also aims to explore the use and level of importance that managers attached to broad types of performance indicators that was in the MBS's programme agreement. This study was motivated by the consistent evidence found in the literature that civil servants attached different degrees of importance to different types of performance indicators, and this was significantly influenced by who were dominant stakeholders in their views (Mc Kevitt and Lawton, 1996; Brignall and Modell, 2000; Hyndman and Eden, 2001). In the analysis, these indicators are classified into two main categories: financial indicators and non-financial indicators. The 'financial indicators' category includes unit cost of output type (i.e cost per identity card (IC)), cost reduction type (to achieve 5% savings in operational costs), and profitability type (i.e Return on Capital Employed). The 'non-financial indicators' category includes quality of output type (i.e Number of Customer Complaints and Timeliness of Services) and quantity of output type (i.e Average number of IC per worker each day). Cost reduction and profitability type were asked simply due to the fact that cost savings as part of the MBS initiative also to test on overall regime to facilitate financial independence amongst government organisations.

**[Insert table 4 here]**

Table 4 displays few interesting finding with regard to use of performance indicators. Particularly, it shows that non-financial indicators were more widely used than financial indicators. Specifically, the overall analysis column in Table 4 reveals that the proportion of respondents indicating the use of quality (85%) and quantity (78%) of output type was higher than the proportion of respondents indicating the use of unit cost per output (63%) type in their organisations. This means that some organisations (15%) were able to measure output, but did not use unit cost of output type as part of the overall performance measures. This may reflect the lack of concern of these organisations to provide output cost information for greater performance purposes, particularly related to efficiency and Value for Money awareness. One bright side, this finding confirms our expectation that with the MBS, the government organisations should place customers related performance indicators more than others, weak emphasis in efficiency may undermine efforts to improve better use of public resources. Without unit cost of output information, cost efficiency assessment and benchmarking would be difficult.

When the overall analysis between responses from Departments, Ministries and Statutory Bodies regarding the use of non-financial indicators against financial indicators was undertaken, it provided consistent clues regarding the different emphasis given by the government organisations across organisational status over financial and non-financial indicators. Although Table 4 revealed that the significant different of responses for profitability types ( $p < .00$ ) and quantity of outputs ( $p < .04$ ) with respondents from Statutory Bodies scored significantly higher in probability indicators, but significantly lower in output indicators, this did not suggest that the problem of lack of emphasis on efficiency and value for money was more prevalent in Ministries and Departments than in the Statutory Bodies. More use of profitability indicators by the statutory bodies was because sixty-eight per cents of the respondents from Statutory Bodies indicated that their organisations generated income, while only 22% of the respondents from Departments gave this response. As far as the quantity of output type is concerned, Table 4 shows the significantly lower use of this indicator by the statutory bodies because greater use of profitability indicators made quantity of output indicators irrelevant.

While analysis on the use of performance indicators provides some insights on the relevance of these indicators in government organisations, analysis on the level of importance that managers attached to these indicators would further strengthen the validity of the findings on the use of these indicators. Interestingly, the overall finding of the responses as displayed in Table 5 revealed a comparable pattern as it was in the analysis of the overall use of these indicators that non-financial indicators were given more priority over efficiency and profitability indicators. It could be seen that quality type and quantity type indicators were ranked first and second in mean scores (4.15 and 4.06, respectively). This confirms the findings of the use of these indicators. The analysis by organisational status was also consistent with similar analysis in the use of indicators, thus not reported further. Nevertheless, lack of pervasive use efficiency indicators across government organisations as revealed above seems to suggest that greater financial autonomy that was promoted by the MBS did not necessarily make government organisations to consider efficiency consideration more seriously.

**[Insert table 5 here]**

The findings of main questionnaire survey disclosed a notable difference between the use of financial and non-financial indicators, with non-financial indicators being more important than financial indicators. In light of these findings, the interview survey further explored the issue. Despite the fact that the government attempted to increase value for money awareness amongst managers, the interview survey revealed that efficiency considerations were not yet paramount at government organisational level. The use of cost information for efficiency consideration is significantly limited, either due to the absence of the information, the information not being designed for managers' use or managers simply being content to use other sources of information to serve the same purpose. The vast majority of government organisations interviewed used expenditure reports and complied with the Treasury's requirements to control costs, with the general attitude being to spend as close as possible to the allocation provided. The interview also revealed that the imbalance between financial and non financial indicators was possibly contributed by the fact that there was a demarcation between operational activities and financial management. In other words, managers are held accountable for operational performance as reflected with greater emphasis on operational targets, but are not held accountable for the relationship between operational performance and uses of financial allocations. These made financial indicators

were less emphasised as far as operational activities were undertaken within budget allocation. This also shows that it was not easy for the new performance measures to get acceptance amongst the managers. They prefer to keep the existing culture of relying mainly on the expenditure report in place. The new results based performance targets may improve transparency and thus change their level of accountability. This apparently made their works more difficult.

Although the interview survey revealed that cost reduction type indicators are not specifically in use, cost control activities of government organisations tend to work within the framework of ‘100% utilisation of the given allocation’. This is because both under-spending and over-spending from the budget allocation are considered unfavourable. Cost reduction activities relating to expenditure control, as disclosed in the interviews, include sending out continuous reminders and limited delegation of financial autonomy to responsibility centre managers to ensure that they spend within the allocated budget. Spend within budget was also undertaken with the motivation that non-spending of allocation would lead to future budget reduction. A senior manager in the largest size department pointed out on this:

“But now, if we don’t spend, we are seen as incapable to plan because what we being allocated based on what we submitted to the Treasury.”

Regarding profitability measures, the interview survey revealed interesting findings. In one case, a Department used profitability indicators as part of their preparation for privatisation process. Profitability indicator was used to determine the expected future cash flows as well as for pricing of service purposes for commercial customers. One of the Statutory Bodies used profitability targets because one of its main activities was trading. Profitability targets, however, were not used to maximise profits, but rather as a control to ensure that sales were adequate to cover the operating costs. The main reason was that the organisation needed to purchase its trading stocks from the target groups at reasonable costs while selling at prevailing market prices. The main function of the activity was to assist the target groups in income generation activities. Another Statutory Body used profitability targets as one of the mechanisms to control its subsidiary companies.

The majority of government organisations that did not use profitability targets can be categorised into two groups. The first is comprised of non-income generating organisations. In this group, profitability indicators are not applicable. The other group generated income. Although organisations in this group generated income because they charged fees for their services, profitability targets were not used for three main reasons. First, the prices were not controllable, as they were fixed by the Cabinet. Second, the services provided by the organisations were heavily subsidised by the government, as a means by which to discharge its social responsibilities. Third, profitability was never a consideration in their decision-making, as their main source of finance was from the Treasury.

Interestingly, interview survey also highlights the expectations of the various managers about the outcome measures as they should be the most important performance indicators of the MBS. However, they revealed that it was difficult to measure the outcomes of activities. Outcomes are not immediately visible within a budget year. The measurement of outcomes from the activities should be performed to measure the extent to which the activities conducted can address the problems that these organisations are set up to address; this is their main performance issue. Commenting on the nature of performance measures that

should be used in his/her organisation, a senior manager in one of the largest Statutory Bodies pointed out:

“We have activities with a substantial amount of the budget, but the effect of the spending is not clear in the short term. We cannot quantify the outcomes in the short term. For instance, we ran a promotional campaign on awareness for 10 years. The impact was not immediately visible. Then, there was a major shift of preference of consumers from foreign products to local products. We had an impact on the industry. The outcome was not on our income, but on our stakeholders and target groups.”

Interviews also discovered the existing accountability requirements of civil servants to focus on achieving quantity targets made the shift of responsibility to achieving outcomes least likely. Managers in government organisations acting in monopoly environments seem to be satisfied with their process and output targets but not outcomes. Output and process quantity performance measurement does not necessarily guarantee the desired outcomes, particularly when the outcomes are the cumulative results of activities from different government organisations.

For instance, the researcher had the opportunity to interview representatives from one Department and three Statutory Bodies, which shared one single Parent Ministry and were mainly solving a similar problem in different target groups. The main desired outcome is improving the conditions of the target groups. Three of them disclosed problems in assessing the outcomes of their activities for the target groups. A line manager in one of these three organisations commented that the successful meeting of the output objective does not guarantee the desired changes in the conditions of the target groups. Only one of these organisations followed through to monitoring changes in the conditions of the target groups. Some of the main problems are the limited scope of the output to address the problems, lack of co-ordination between organisations within the same Parent Ministry operating in the same jurisdiction and not enough competent workers. These issues had not received the attention of the top management of these organisations because the overall quantity performance targets had been the focus. This finding discloses the danger of placing emphasis on quantity output indicators, while ignoring the overall objectives of the activities – reflected as outcomes. Commenting on the accountability gap between output quantity targets and outcomes, a responsibility centre manager of a medium sized Statutory Body remarked:

“Based on the performance being measured, we are good enough. For people (top management) in the main office, as long as we achieve the output target assigned to us, that is enough. But, the impact of those activities on our customers is questionable. The impacts are there but not comprehensive. Apparently, our objective is concentrated on achieving the output targets, but not on the overall improvement in the conditions of our customers. Overall, their conditions remain the same after 25 years I have been in the service.”

This also revealed the need that the overall review of government organisations’ activities should be subject to independent assessment to ensure their appropriateness and adequacy to properly serve the target groups that these organisations set out to serve. In short, a shift from input/process accountability to output accountability is itself a major reform, as recognised in the NPM. However, this shift is apparently not sufficient to ensure proper utilisation of public funds in service deliveries to the public, as reflected by the concerns of some

managers who, when interviewed, commented on the importance of assessing the outcomes of their organisations' activities.

The attempt to make civil servants accountable for outputs and outcomes faced accountability structural problem as analysed in impact of MBS on output based accountability. Apparently, extending the accountability structure of the civil servants from process/output accountability to outcomes accountability need substantial government expenditure as to put the proper accountability infrastructure into places. The needs to hire competent civil servants for the purpose (both internal evaluation as well as attestation of independent body), allocation to conduct the study, information system across the civil services to share the information. All these require extra workloads and burdens to the civil services. Above all, the motivation of the senior civil services to put this system into place might not be favourable, as the system would expose their weakness in managing the public funds further.

## CONCLUSIONS

The attempt by the Malaysian government through the performance measures of the MBS is considered as significant to put forward the reforms in the government to be in line with reforms in the developed nations that emphasised results based accountability of civil service managers. Traditionally, the civil service organisations relied on input and process based performance indicators. The NPM's proponents argued that output based indicators would lead to better management of public funds.

The purpose of this study was mainly twofold. Firstly, this study attempts to find evidence regarding the impact of the MBS, which is NPM's like reform (devolved budgeting, customer focus and application of output based performance measures) on performance measurement practice in the Malaysian central government. Specifically, the study sought the perceptions of senior managers on how they perceived the MBS had change the way their organisations measure their performance. Majority of the respondents from both questionnaire and interview surveys perceived that the MBS had improved performance measurement in their organisations. Interestingly, they recognised that there was a shift from process and input based indicators to output based performance targets. Nevertheless, further analysis of the interview survey findings reflects that the improvement was limited. Concerns of the managers on the usefulness of the indicators reflect their tendency to comply with the Treasury's requirements than for managerial purposes. Lack of enforcement on the part of the Treasury on these performance indicators in their budget review and control further worsen the development of the output based performance indicators. Also, analysis about the parties consulted to develop the key performance indicators also revealed that lack of engagement of the customers in the process. Although the MBS was supposed to emphasis on customers, weakness to identify customer needs and wants would somehow undermine the quality of indicators developed

Secondly, this study also attempts to provide evidence regarding the use and importance of each type of performance indicators that civil service managers attached. Based on findings of the prior studies that asserted performance indicators that were emphasised by dominant stakeholders of government organisations would make the performance indicators become important in the eyes of top management of the government organisations. Consistent with the findings of the use of the performance measures, non-financial indicators were considered more important than financial indicators in majority of organisations participated in the study. This finding could be a good news that with the



MBS, government organisations were concerned on quality of their services. As the findings of the interview survey highlighted the importance of budget expenditure report, unit cost information was considered as less relevant as long as the government organisations could work within the budget allocation. Furthermore, the study revealed that the main financial performance measure was to exhaust the budget allocation. Although, expenditure target of the MBS was meant to limit the spending and reducing gaming, the culture of year end spending spree remains as to avoid future cut of allocations. More recently, government organisations were required to develop and set targets for their Key Performance Indicators (KPIs) (PMD, 2005). Nevertheless, without the structural changes that this study put forward, any new initiative would be more of a show that change in substance. Nevertheless, as pointed by Scapens (2006) that it possible in management accounting change initiated by central government body would later became the catalyst for the managers in government organisations to adopt the technique for managerial purposes.

In spite of the following limitations, a considerable effort was undertaken in the study to ensure that the original aims and objectives of the study were met and the research objectives were answered. Firstly, this study was confined to the impact of the MBS on performance measurement in central government organisations. Thus, no reference is made to the impact of the MBS on other public sector components such as state government, local government, hospitals, and public schools and universities. Secondly, there are obvious limitations in asking senior managers of government organisations about improved effectiveness, autonomy and management systems. Any deficiencies admitted might be perceived as deficiencies in their management abilities. This also may produce bias in their perceptions. Also, the overall response rate to the questionnaire survey was only seventy-two per cent. Although the response rate was considered high, based on common practice in questionnaire surveys, the twenty-eight per cent non-response rate may indicate inherent systematic bias. However, the fact that triangulation of data was undertaken through interview surveys to minimise bias generated by research respondents.

There are three ways in which the research as a whole could be extended. First, the perceptions and experiences of managers at the state and local government levels regarding the impact of the MBS on performance measurement in their organisations could be incorporated. This could be undertaken by distributing the questionnaire used in this study to these managers. Second, further research should ascertain to incorporate the perceptions and experience of officers from the Treasury and the Accountant General's Department who were directly involved in advising and monitoring the implementation of the MBS. Also of benefit would be a case study approach that would attempt to study in depth the changes in performance measurement practice that have taken place since the introduction of the new system. In-depth comparative research could be undertaken by studying cases of organisations that had adverse experiences and those that had positive experience of the reforms.

**LIST OF TABLES**

<b>Table 1: Status of Respondents by category of employment.</b>								
	<b>Departments</b>		<b>Statutory Bodies</b>		<b>Ministries</b>		<b>Total</b>	
	<b>No.</b>	<b>%</b>	<b>No.</b>	<b>%</b>	<b>No.</b>	<b>%</b>	<b>No.</b>	<b>%</b>
Director General/ Chief Executives/Secretary General	10	18	1	4	2	14	13	14
Deputy Director General	9	16	3	12	4	29	16	17
Admin & Finance Directors	22	40	8	32	7	50	37	39
Director Of Corporate/ Planning	6	11	4	16	1	7	10	11
Senior General Managers	8	15	9	-	-	-	18	19
<b>Total</b>	<b>55</b>	<b>100</b>	<b>25</b>	<b>100</b>	<b>14</b>	<b>100</b>	<b>94</b>	<b>100</b>

<b>Table 2: The Overall Impact of the Modified Budgeting System on the Performance Measurement of Malaysian Government Organisations (n=91)</b>								
<b>Impact of the Modified Budgeting System on:</b>	<i>No Change</i>		<i>Moderate Improve</i>		<i>Significantly Improve</i>		<i>OVERALL</i>	
	No	%	No	%	No	%	<u>MEAN</u>	<u>RANK</u>
Output based performance measurement	16	18	63	69	12	13	3.96	1
linkage between inputs and outputs	21	23	54	60	15	17	3.93	2
Developing own output measures	22	24	55	61	13	14	3.90	3

<b>Table 3: Overall Analysis showing the stakeholders consulted to select types of performance indicators used</b>		
<b>Parties consulted:</b>	<b>Overall analysis (n=94)</b>	
	<b>No.</b>	<b>%</b>
The Line Managers	66	70
Top Management	66	70
The Parent Ministry	27	29
The Treasury	22	23
The Customers	20	21
No Party consulted	1	1

<b>Table 4: Analysis showing the performance indicators used</b>						
<b>Types of Performance Indicators:</b>	<b>Overall analysis (n=94)</b>		<b>Organisational Status (see Note 1)</b>			
			Dept.	SB	Min	Sig
<b>Financial Indicators:</b>	No.	%	%	%	%	
Unit cost of output type	59	63	67	52	64	-
Cost Reduction type	50	53	46	64	64	-
Profitability type	25	27	18	52	14	*p=.00
<b>Non-Financial Indicators:</b>						
Quality of output type	<b>80</b>	<b>85</b>	<b>86</b>	<b>88</b>	<b>78</b>	-
Quantity of output type	73	78	86	60	79	*p=.04
Note 1: Where: (Dept)=Departments; (SB)= Statutory Bodies and (Min)= Ministries						
* indicates distribution of responses between the three categories is significantly different (using the Kruskal Wallis test).						

<b>Table 5: Overall Analysis showing the Importance Attached by Respondents to Types of Performance Indicators Used</b>								
<b>Types of Performance Indicators:</b>	<b>Very Unimportant / Not Important</b>		<b>Neutral</b>		<b>Important / Very Important</b>		<i>OVERALL</i>	
	No	%	No	%	No	%	<u>MEAN</u>	<u>RANK</u>
<i>Financial Indicators:</i>								
Unit cost per output type (n=77)	7	9	18	23	52	68	3.79	3
Cost Reduction type (n=71)	11	16	19	27	41	57	3.51	4
Profitability type (n=59)	22	38	16	27	21	35	2.90	5
<i>Non-Financial Indicators:</i>								
Quality of output type (n=86)	3	3	8	9	75	88	4.15	1
Quantity of output type (n=82)	4	5	11	13	67	82	4.06	2

## REFERENCES

- Abdul Hamid, A.S (1994), The civil service of Malaysia: A paradigm shift, Kuala Lumpur: Percetakan Nasional Malaysia Berhad.
- \_\_\_\_\_ (1995), 'Government in transition: building a culture of success – the Malaysian experience', Public administration and development, Vol. 15, pp. 267-269.
- Alford, J. and Baird, J. (1997), 'Performance monitoring in the Australian public service: a government wide analysis', Public Money and Management, April-June, pp. 49-58.
- Ansari, S. and Euske, K.J. (1987), 'Rational, rationalizing and reifying uses of accounting data in organizations', Accounting, Organization and Society, Vol. 12, pp. 549-570.
- Babbie, E. (1992), The practice of social research, sixth edition, California: Wadsworth Publishing company.
- Ballantine, J., Brignall, S. and Modell, S. (1998) 'Performance measurement and management in public health services: a comparison of UK and Swedish practice'. Management Accounting Research, Vol. 9, pp. 71-94.
- Boston, J. (1993), 'Financial management reform: Principles and practice in New Zealand', Public Policy and Administration, Vol. 8, No. 1, pp. 14 – 29.
- Boyle, R. (1991), Managing devolved budgeting: the civil services' experience, Dublin: Institute of Public Administration.
- Boyne, G. A. (2003), 'What is public service improvement?', Public Administration, Vol. 81, No. 2, pp. 211-227.
- Brignall, S. and Modell, S. (2000), 'An institutional perspective on performance measurement and management in the new public sector', Management Accounting Research, Vol. 11, pp. 281-306.
- Bujang, F. (1996), Implementation of the Modified Budgeting System in the Malaysian Ministry of Health with special reference to Sarawak General Hospital, University of Aberdeen: PhD thesis (unpublished).
- Carter, N. and Greer, P. (1993), 'Evaluating agencies: Next Steps and performance indicators', Public Administration, Vol. 71, Autumn, pp. 407-416.
- Clatworthy, M. and Mellett, H. (1997), 'Managing health and finance: conflict or congruence', Public Money and Management, Oct-Dec, pp. 41-46.
- Commonwealth (1995), Current good practices and new developments in public service management: a profile of the public services of Malaysia, London: Commonwealth Secretariat.
- DeVaus, D.A. (2001), Research design in social research, London: SAGE.

- Halachmi, A. (2000), 'Value for Money, best value and measuring government performance: An Introduction to the Symposium', International Review of Administrative Sciences, Vol. 66, No. 3, pp. 387-391.
- Hood, C. (1995), 'The New Public Management In the 1980s: Variation on A Theme', Accounting Organisation and Society, Vol. 20, No. 2 & 3, pp. 93-109.
- Hyndman, N.S. and Anderson, R. (1997), 'A study of the use of targets in the planning document of executive agencies', Financial Accountability and Management, Vol. 13, No. 2, pp. 139-164.
- \_\_\_\_\_ and Eden, R. (2001), 'Rational management, performance targets and executive agencies: views from agency chief executives in Northern Ireland', Public Administration, Vol. 79, No. 3, pp. 579-598.
- \_\_\_\_\_ and Eden, R. (2002), 'Executive agencies, performance targets and external reporting', Public Money and Management, July-Sept, pp. 17-24.
- Jackson, P.M. (1993), 'Public service performance evaluation: a strategic perspective', Public Money and Management, Oct-Dec, pp. 9-14.
- Karbhari, Y. (1997), Managerial Reforms in Government and the Impact of the Agencification Programme on Accounting, Accountability and Effectiveness, University of Wales(Cardiff): PhD thesis(unpublished).
- Likierman, A. (1993), 'Performance indicators: 20 early lessons from managerial use', Public Money and Management, Oct-Dec. pp. 15-22.
- Malaysian Treasury (1988), 'The preparation of the budget proposal for Year 1990 for the Ministry of Health, the Ministry of Work and the Ministry of Social Welfare according to the Modified Budgeting Process' The Treasury Circular, No. 11, Kuala Lumpur: The Malaysian Treasury.
- \_\_\_\_\_ (1994), 'The guidelines for preparation of the budget proposal and annual expenditure performance evaluation for the Central Government', The Treasury Circular, No. 14, Kuala Lumpur: The Malaysian Treasury.
- \_\_\_\_\_ (1996), 'Report for programme and performance budgeting estimate book, Treasury Circular Letter, No. 5, Kuala Lumpur: The Malaysian Treasury.
- \_\_\_\_\_ (2001), Information paper on the Modified Budgeting System in Malaysia, Putrajaya: the Malaysian Treasury (unpublished).
- Manning, N. (2001), 'The legacy of the New Public Management in developing countries', International Review of Administrative Sciences, Vol. 67, pp. 297-312.
- McKevitt, D. and Lawton, A. (1996), 'The manager, the citizen, the politician and performance measures', Public Money and Management, Vol. 16, July-Sept., pp. 49-54.

- Minogue, M. , Polidano, C., and Hulme,D. (1998), 'Introduction', in Minogue, M., Polidano, C., and Hulme,D. (eds.), Beyond the New Public Management: Changing ideas and practices in governance, Cheltenham: Edward Elgar, pp. 1-14.
- Modell, S. (2001), 'Performance measurement and institutional processes: a study of managerial responses to public sector reform', Management Accounting Research, Vol. 12, pp. 437-464.
- \_\_\_\_\_ (2003), 'Goals versus institutions: the development of performance measurement in the Swedish university sector', Management Accounting Research, Vol. 14, pp. 333-359.
- Mohamad, M.H.S. (2004), The impact of financial and managerial reforms on accounting, effectiveness, and performance measurement in Malaysian central government organisations, PhD thesis, Cardiff (unpublished).
- OECD (1995), Governance in transition: Public management reforms in OECD Countries, Paris: OECD.
- Pallot, J. (1999), 'Beyond NPM: developing strategic capacity', Financial Accountability and Management, 15, No. 3 & 4, pp. 419-426.
- Pendlebury, M.W., Jones, R. and Karbhari, Y. (1994), 'Development in the accountability and financial reporting practices of executive agencies', Financial Accountability and Management, Vol. 10, No. 1, pp. 33-46.
- \_\_\_\_\_ and Karbhari, Y. (1997), 'Management and accounting development in Executive Agencies', Financial Accountability and Management, Vol. 13, No. 2, pp. 117-138.
- Prime Minister's Department (PMD) (1991), 'Guidelines on Productivity Improvement in The Public Services', Development Administration Circular, No.6, Kuala Lumpur, PMD
- \_\_\_\_\_ (1992), 'Guidelines on Total Quality Management in the Public Services', Development Administration Circular, No. 1, Kuala Lumpur: PMD.
- \_\_\_\_\_ (2005), Guidelines to set Key Performance Indicators (KPIs) and to implement performance measurement at government agencies', Development Administration Circular, No. 2, Putrajaya: PMD
- Polidano, C. (1999), 'The New Public Management in developing countries', Public Policy and Management Working Paper No. 13, Manchester: Institute for Development Policy and Management, University of Manchester.
- Pollanen, R.M. (2005), 'Performance measurement in municipalities: empirical evidence in Canadian context', International Journal of Public Sector Management, Vol. 18, No. 1, pp 4-24.



- Pollitt, C. (1986), 'Beyond the managerial model: the case for broadening performance assessment in government and the public services', Financial Accountability and Management, Vol. 2, No. 3, pp. 155-170.
- \_\_\_\_\_ and Bouckaert, G. (2000), Public Management Reform: A Comparative analysis, Oxford: Oxford University Press.
- Romzek, B.S. (2000), 'Dynamics of public sector accountability in an era of reform', International review of administrative sciences, Vol. 66, pp. 21-44.
- Sanderson, I. (2001), 'Performance management, evaluation and learning in 'modern' local government', Public Administration, Vol. 79, No. 2, pp. 297-313.
- Scapens, R.W. (2006), 'Understanding management accounting practices: A personal journey', The British Accounting Review, Vol. 38, pp. 1-30.
- Shafie, H. (1996), 'Malaysia's experience in implementing the new performance appraisal system', Public Administration and Development, Vol. 16, pp. 341-352.
- Sinclair, A. (1995), 'The Chameleon of Accountability: Forms and Discourses', Accounting, Organizations and Society, Vol. 20, No. 2 & 3, pp. 219-237.
- Smith, P. (1993), 'Outcome-related Performance Indicators and Organisational Control in the Public Sector', British Journal of Management, Vol. 4, pp. 135-151.
- ter Bogt, H.J. (1999), 'Financial and economic management in Autonomised Dutch Public Organisations', Financial Accountability and Management, Vol. 15, No. 3 & 4, pp. 329-351.
- Xavier, J.A. (1996), The modernisation of budgetary control and management comparing reform processes in Malaysia and Australia, 1985-1995, London School of Economics and Political Sciences: PhD (unpublished).
- \_\_\_\_\_ (1998), 'Budget reform in Malaysia and Australia compared', Public budgeting and finance, Spring, pp. 99-118.