

Perceived Usefulness of Management Accounting System, Budget Participation, Individual Accountability and Managerial Performance: A Study on Malaysian Local Authority

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ABSTRACT

This paper examined the combined effect of perceived usefulness of Management Accounting System (MAS), budgetary participation and individual accountability on managerial performance. The data was collected using questionnaires addressed to 78 officers from five local authorities. The findings did not support the direct effect of perceived usefulness of MAS on managerial performance. However, the findings revealed that high level of budgetary participation significantly influenced high level managerial performance. Similarly, the results also showed that high perceived level of individual accountability significantly influenced managerial performance.

Keywords: *organizational performance, performance criterion, accountability*

Introduction

In the early 1990's, public administration around the world have introduced the concept of New Public Management (NPM) (Brignall & Modell, 2000). This concept calls for the introduction of more incentives in governmental organizations to improve effectiveness and efficiency (Budding, 2004). NPM involved a different conception of public accountability, with different patterns of trust and distrust and hence a different style of accounting. The basis of NPM lay in lessening or removing differences between public and private sector and shifting the emphasis from process accountability towards a greater element of accountability in terms of results.

The approach under NPM is to emphasize on measuring the output of subunits and holding managers accountable (Hood, 1995). Hence, governmental organizations are expected to improve their decision making and performance. This is particularly true in local authorities. Kloot and Martin, (2002) agreed that local authorities have traditionally been concerned with measuring the delivery of primary objectives (results) at the expense of secondary objectives (determinants) of organizational performance. The continuing reform of local authority system worldwide will demand accurate, timely and relevant information with which to assess local council performance.

Over the past years, there have been increasing complaints about the performance of local authorities in Malaysia which include mismanagement, inefficiency and corruption. These activities can be minimized if the organizations have a good system of accountability (Onu, 1988). It is important that someone has to answer for the success or failure of an organization set up (Johnson & Holubec, 1998). Accountability is a major instrument for instilling public trust or confidence in local authorities. Holding managers accountable for results can lead to an improved government performance (Budding, 2004).

Management Accounting System (MAS) is a formal system designed for providing information to managers (Bowens & Abernethy, 2000). The usefulness of MAS would ensure the effective implementation of NPM. The needs for MAS information depends on the responsibilities of each manager (Chong, 1996). In addition, the flow of information can be both upward and downward. Budget participation allows the sharing of information between subordinates and superiors (Chow, Cooper & Waller, 1988). The sharing of information in MAS and budget participation would lead to a better performance (Lal & Hassel, 1998; Tsui, 2002).

There has been little theory or empirical research that investigates how MAS and accountability affect managerial performance. Hence, the objective of this study is to examine the effect of perceived usefulness of MAS, budgetary participation and accountability on managerial performance. It is hoped that this current study would provide some insights on the importance of management

accounting system in improving the managers' accountability as a means of achieving the local authorities' goals.

Literature Review & Hypotheses Development

Local Authorities

Local government in all countries operate from a legislative base determined by a higher legislature. In some cases, this is the central government; in others it is the state legislature (parliament) that determines the power, authority, duties and functions of local government. In Malaysia, the administrative system is divided into three major levels of hierarchy: the Federal Government, the State Government and the Local Government. Local Government becomes the Local Authority for its area. The Local Government Act (1976) regulates the powers, duties, responsibilities and functions of local authorities.

The functions of local authorities would include those functions controlling the level of the local unit including Town and City councils. The role of these local authorities is to provide services to its local residents with the goal of raising the standard of living through better social amenities and facilities. They are responsible for the vital services critical to household and business sectors such as sanitary services, road maintenance, parking services, health and education.

Formerly, the local authorities focused on providing and regulating services as well as the appointment of staff at the higher levels. However, over the years, local authority has evolved into a system that has its own identity, characteristics and laws that reflect the nation socio-economic and political environment. These new roles of local authority therefore demand the officers to be more transparent and accountable.

Perceived Usefulness of MAS

MAS can be defined as those parts of the formalised information system used by the organisations to influence the behaviour of managers that leads to the attainment of organisational objectives (Gerdin, 2005). There are three fundamental elements in MAS. These are (i) multidimensional composite of planning and control system; (ii) provider of information for managerial decision making and evaluation, and (iii) enhancing organisation's performance outcomes at the opening level. These three basic elements provide the basis of their research framework. The multidimensional element signifies the composite nature of the multiple subsystem components that comprise the overall management accounting system. The second element highlighted the management accounting system in providing relevant information according to manager's need. The

third major element involves the concept of some performance criterion at individual level (Otley, 1978).

Research on information usefulness has been concerned with improving MAS design to suit the managers' information processing needs (Chenhall & Morris, 1986; Lal & Hassel, 1998). The characteristics of information have effects on the usefulness of MAS (Chenhall & Morris, 1986). There are four characteristics to MAS; scope, integration, aggregation and timeliness (Gordon & Miller, 1979; Mia & Goyal, 1991). This research will only examine two dimensions i.e., scope and timeliness (refer to Figure 1). First, broad scope of MAS information would include (i) information that is external to the organisation such as economic conditions, population growth, technological development etc., (ii) non-financial information related to efficiency, employees absenteeism etc. and (iii) future oriented information which relates to possible future events and the quantification of the likelihood of events occurring. Second, the timeliness of MAS refers to a manager's ability to respond quickly to events (Chenhall & Morris, 1986). MAS is considered high on timely dimension when information is provided frequently and when there is little delay between an event occurring and when information concerning this event is provided to managers (Bouwens & Abernethy, 2000).

Past evidence support that high level of perceived usefulness of MAS improves managerial performance. Managerial performance refers to the performance of managers within an organisation. According to Chong (1996), managerial performance was high when a broad scope of MAS information was used by managers under high tasks uncertainty situation. In contrast, he found that managerial performance was found to be low when a broad scope MAS information was used by managers under low tasks uncertainty situation. Tsui (2002) also examined the perceived usefulness of MAS in manufacturing firms. The results showed that at a high level of participation there was a negative relationship between MAS information & managerial performance of Chinese managers, where as a positive relationship among Caucasian managers. Hence, we suggest the following hypothesis:

H1: The perceived usefulness of MAS is positive in relation to managerial performance.

Budgetary Participation

A budget is a resource plan, matches inputs (e.g. staff, premises, equipment costs) to planned output and objectives and gives authority to spend. As such, budgets are critical to ensuring that resources are directed in accordance with agreed policies and priorities and in providing a basis for monitoring and accountability. Budget contributes a major activity in MAS. An effective budget is believed to give good results in department, more so if the budget is accepted

by individuals within the organisations. Acceptance of budget would be high if individuals participated in the setting of the budget (Drury, 2005).

Budgetary participation has been identified as a key element in an organisation's management control system that can affect managerial performance (Bownell, 1982; Lau, Low and Eggleton, 1995; O'Connor, 1995). Subordinates gain additional information from others within the organisation through the budgeting process (Chenhall & Brownell, 1988; Magner et al., 1996). Discussion carried out with the superiors during the budgetary process will reduce a lot of ambiguity. Their goals and methods will be clearer and hence, lead to high job performance. Chenhall and Bownell (1988) agrees that through budget participation, subordinates gain information that helps clarify their organisational roles, including their duties, responsibilities and expected performance. Hence, employees who are active in budgeting process will perform better. The following hypothesis is proposed:

H2: Budgetary participation is positive in relation to the managerial performance.

Individual Accountability

Accountability is a major instrument of instilling public trust or confidence in any organizational set up (Onu, 1988). Any organisation that lacks a good system of accountability will hardly accomplish its goals. It is therefore imperative that someone has to answer for the success or failure of an organisational setup of which the Local Government System is one. Leaders are accountable for the readiness and ability of their subordinates to fulfil their roles and responsibilities. Nowadays, local authorities also pay more attention to transparency of the outcomes resulting from activities and outputs (Johnson & Holubec, 1998).

When managers are held more accountable and/or responsible, their incentive to improve efficiency is greater (Budding, 2004). It appears that the attitude of municipal managers towards accountability and towards uncertainty depends to a large extent on the use of accounting information. Budding (2004) conducted interviews with 19 managers of Dutch municipalities on their performance. The results showed that managers are positive about making and complying with agreements and providing more transparency in the results of the department's performance. Further, he also supported that holding managers accountable for results can lead to an improved government performance. Hence, we propose the following hypothesis:

H3: Individual accountability is positively related to managerial performance.

Based on the above literature review, we propose a conceptual model in Figure 2 to investigate the relationship between perceived usefulness of MAS, budgetary participation and individual accountability with managerial performance.

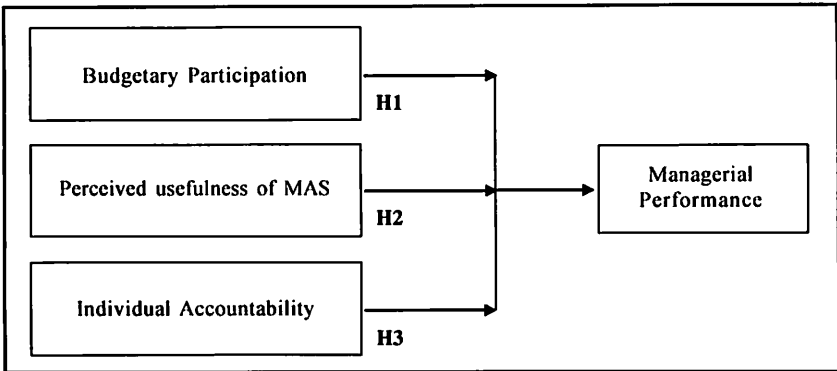


Figure 2: Theoretical Framework

Methodology

Sample

In developing an accurate mailing list, each district or town local authority was contacted and the names of staffs were identified. Five local councils had been selected, namely, Johor Tenggara, Ipoh, Tapah, Kajang and Shah Alam. These local councils were chosen according to geographical areas which represent both district as well as town councils. The questionnaires were sent directly to division A and division B employees in the selected district or town council. These groups of employees were involved in budget setting and implementation. A total of 300 questionnaires were distributed and 89 questionnaires were returned (six unusable questionnaires) representing a response rate of 29% percent.

Data Collection

A survey was employed to collect the data for this study. The questionnaire has three parts. The first part comprised measures on commitment, budgetary participation, performance measures and perceived usefulness of MAS. The second part included measures on managerial performance and individual accountability. The last part covered the respondent's profile. The questionnaire was originally developed in the English version and later, was translated to Bahasa Melayu. Both versions are attached in Appendix A.

The survey was designed to preserve the anonymity of respondents. Surveys were not pre-numbered for identification, and respondents were not required to identify themselves or their organizations. The mail survey package

included an introductory letter explaining the purpose of the research, a copy of the survey, and a postage-paid envelope. A reminder letter was posted three weeks after the initial postage.

A pilot test was conducted to ensure that the questionnaire was valid and reliable. The pilot test was surveyed on division A and division B employees in other government agencies. Feedback from the pilot study was taken to refine the design of the questionnaire. Changes were made due to unfamiliar terminologies and ambiguities in the questionnaire.

Measurement

The data collected were used to measure variables specified within the following suggested framework: budgetary participation, management commitment, performance measures, management accounting system and performance outcomes.

The Perceived Usefulness of MAS

The perceived usefulness of MAS was measured by using the two characteristics adapted from the Chenhall and Morris' (1986) instrument; scope and timeliness. The selection of scope and timeliness is based on its theoretical linkages to performance outcomes (Gordon & Narayanan, 1984; Tsui, 2002). Nine questions adapted from Chenhall and Morris (1986) were included in the questionnaire in order to evaluate the perceived usefulness of MAS scope and timeliness characteristics. Five questions focused on the broad scope while four questions, asked on the timeliness. It was decided to combine these items since factor analysis revealed that all the items loaded significantly as one factor. Cronbach's alpha for the nine items was 0.911.

Budgetary Participation

Budgetary participation was measured by using Milani's (1975) six-item measurement instrument (Brownell, 1982b). The items measured the managers' perceptions of the level of influence and involvement in setting a budget. The reliability test of Cronbach's alpha for the scale was 0.865.

Accountability

Four questions measured the extent to which managers feel they are held accountable for results. The items were adapted from Budding (2004). Respondents were asked to rate the following statements on a seven-point scale: (1) I feel inspired to improve the efficiency of the operational management by providing more insight into the results of my own department, (2) I see the maximum available budget as an important constraint. I will strive to keep within

this budget and not to ask for an increment, (3) I see making agreements about responsibilities as a positive constraint of those things I can be held accountable for, and (4) in case I am called to account for financial responsibilities, I manage to look for ways to make savings and/or to increase funds. The reliability test of Cronbach's alpha is 0.834.

Managerial Performance

Managerial performance was measured by a self-evaluation questionnaire adapted from Mahoney, Jerdee, & Carroll (1963). A seven-point Likert scale was used. There were nine sub-dimensions which included questions on planning, investigating, coordinating, evaluating, supervising, staffing, negotiating, representing and overall performance. An overall score calculated by averaging the nine subdimensions was used as a measure for managerial performance. This measure though is subjective, it is sufficient to provide insights of the extent of the "perceived" performance (e.g., Tsui, 2002). A Cronbach's alpha value of 0.893 showed satisfactory convergence of the items.

Control Variables

Three variables are considered as control variables in this study, namely, the respondent's age, gender and service periods of the respondents.

Analysis

Descriptive Analysis

Demographic data related to the respondents' age, race, gender, and organizational positions, academic qualifications were detailed in Table 1. The descriptive data in Table 1 showed that the respondents were Malays, of which, 36 percent are female, and 64 percent were male. Only 4 percent of the respondents were Master's degree holders. 37 percent were degree holders and 40 percent were diploma holders. About 16 percent of the respondents possessed either STPM or SPM. Results also showed that 23 were from Ipoh, 10 from Tapah, 12 from Johor Tenggara, 30 from Shah Alam and 8 from Kajang City Councils.

Table 1: Demographic Statistics

Items	N	%
Race – Malay	83	100.00
Gender		
Female	30	36.1
Male	53	63.9
Qualification		
Master	3	3.6
Degree	31	37.3
Diploma	33	39.8
STPM/ Certificate	3	3.6
SPM/ MCE	11	13.3
Missing	2	2.4
Location		
Ipoh	23	27.7
Tapah	10	12.0
Johor Tenggara	12	14.5
Shah Alam	30	36.1
Kajang	8	9.6
Age - Mean (Std. Dev.)	35.44	(7.83)
Years of service in the organization- Mean (Std. Dev.)	9.57	(6.98)
Years of service in the department- Mean (Std. Dev.)	8.05	(5.93)
Years of experience - Mean (Std. Dev.)	12.52	(7.69)

Overall, the mean age of the respondents was 35 (range 21–66) and mean experience was 12 years (range 1–39). The mean length of service in the organization was 9 years while the length of service in the department was 8 years. The close difference between the length of service in the organization and the department showed that respondents were quite attached to their current department with relatively low movement to other departments.

Correlation Analyses

A correlation matrix for MAS, budgetary participation, and performance was given in Table 2. All of the control variables showed negative associations with performance outcomes (accountability and performance evaluation) and the usefulness of MAS. As expected, the correlation matrix showed that budgetary participation was positively correlated to managerial performance. All of the bivariate correlations among the main independent variables are less than 0.70. This indicates that there are low correlations among the independent variables (control variables, budgetary participation, and perceived usefulness of MAS).

Table 2: Correlation Analysis for Nine Variables (n = 83)

	1	2	3	4	5	6
1 Managerial Performance						
2 Individual Accountability	0.629**					
3 The Usefulness of MAS	0.408**	0.429**				
4 Budgetary Participation	0.580**	0.508**	0.386**			
5 Gender	-0.044	-0.067	-0.023	-0.060		
6 Length of Service in The Current Post	-0.235*	-0.372**	-0.170	0.010	0.110	
7 Length of Experience	-0.068	-0.151	-0.097	0.129	0.218*	0.570**

** Significant at the 0.01 level * significant at the 0.05 level

Regression Analyses on Managerial Performance

Table 3 provides evidence on the effect of perceived usefulness of MAS, budgetary participation, and accountability on managerial performance. Due to some missing responses for some of the variables, the sample size was 78. Model 1 which includes the control variables did not significantly influence managerial performance. The resulting regression of Model 2 was highly significant, with a change in R-squared 44.6% ($p < 0.01$). Perceived usefulness of MAS was not significantly related to managerial performance. Both variables, budgetary participation and individual accountability were significantly related to managerial performance. Hence, model 2 supported H2 and H3 but not H1. This indicated that high level of budgetary participation and individual accountability enhanced performance.

Table 3: Dependent Variable: Managerial Performance

Variables	Model 1	Model 2
Intercept	4.633	1.098
Gender	-0.079	0.013
Length of service in the current position	-0.052*	-0.014
Length of experience	0.015	-0.002
Perceived usefulness of MAS		0.074
Budgetary participation		.271***
Accountability		.379***
R	0.252	0.714
Change in R ²	0.064	0.446
R ²	0.064	0.510
F-statistic Change	1.702	21.860***
Df	75,3	75,6

***significant at the 0.01 level

**significant at the 0.05 level * significant at the 0.10 level

Implications and Limitations

This study draws upon the management accounting and public sector reform literature to examine some of the factors that influence performance of Malaysian local authorities. The inclusion of perceived usefulness of MAS, budgetary participation and accountability provides important implications for expanding our understanding on the performance of our local authorities. A good design of information flow that clearly identifies an employee's responsibilities and involves the employee in decision-making processes that are relevant to her/his job should enhance the quality of their works. That should, in turn, result in increased performance to the organization. Increased smoothness of information process should lead to an increase in responsibilities that result in more accountability among the local authorities' staff.

The present study does have a number of methodological limitations. First, our sample was from five local councils, and this setting may be unique enough to limit the external validity of our findings. Generalization requires further testing with employees at various levels within organizations, and from across different types of organizations. Second, one limitation of the findings is the use of self-report questionnaires to collect data on all measures. The use of respondents' perceptions to measure the variables has been criticized on the grounds that they are not objective. This is not a serious limitation since managers' actions and decisions are based on their perceptions. Third, we assessed managerial performance by respondents to rate themselves. However, this method reduces the independence of the performance outcomes ratings. Future research measuring actual outcomes at the individual level would contribute significantly to this area of study. Finally, all of our data were collected cross-sectionally. Not only were we unable to rule out relationships based on reverse causality, we were also unable to truly test our causal inferences. Stronger causal inferences await longitudinal or experimental studies.

The results of this study also provide opportunities for future research. Future research can be on attempts to generalize these findings to other population of government agencies. Furthermore, future studies could also examine other contextual variables such as environment uncertainties and organizational structure to provide more evidence regarding the role of MAS in public sector. Other research could also clarify relationships between MAS and performance outcomes. There may be varying conditions under which MAS are more or less likely to affect performance outcomes.

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