INTERACTION EFFECT OF BUDGETARY PARTICIPATION AND MANAGEMENT ACCOUNTING SYSTEM ON MANAGERIAL PERFORMANCE: EVIDENCE FROM INDONESIA

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ABSTRACT

This study examines the examine effect of interaction budgetary participaton(BP) and the characteristics of management accounting systems (MAS) including scope (BMAS), timeliness (TMAS), angregation (AMAS) and integration (IMAS) on managerial performance (MP). The study used a survey questionnaire and was sent to leaders of the Regional Work Unit in Banda Aceh. A moderate regression model is used to examined the interaction effect among BP, the characteristics of each MAS and MP. The results showed the interaction between BP and BMAS is negatively related to MP. The interaction between BP and IMAS is positively related to MP. This study shows an interaction between BP and TMAS; BP and AMAS on MP. We explore implications on the development of management accounting theory in that the control system developed at private organization can not be generalized entirely tp government organizations.

JEL: H6, H7

KEYWORDS: Budgetary Participation, Management Accounting Systems, and Managerial Performance

INTRODUCTION

The influence of the interaction between budgetary participation (BP) and management accounting systems (MAS) on managerial performance (MP) is not clear in the management accounting literature. Obscurity is due to different research results among researchers. According to Cheng (2012), this is the result of non-monotonic interaction between BP and MP over the range of the broadscope Management Accounting System (BMAS). The non-monotonic nature of BMAS shows a moderate positive relationship between BP and MP when MAS is high and a moderate negative relationship when MAS is low. Eker (2009) showed that MAS can moderate relationships between participation in budgeting and performance and that MAS score varies according to low and high managerial performance. In other words, higher use of MAS information leads to high MP, while less use of MAS information leads to low MP. Differences in the findings are also caused by culture. Tsui (2001) concluded the effect of interaction between BP and MAS on MP is negative for Chinese managers and positive for western managers. However, Etemadi et al (2009) concluded there was no interaction effect between BP and the MAS on the performance of managers in Iran.

In general, accounting researchers measure MAS quality through the characteristics of the MAS (Gul, 1991; Abernethy and Guthrie, 1994; Gul and Chia, 1994; Mia and Chenhall, 1994; Chong, 1996; Chong and Chong, 1997; Moores and Yuen, 2001; Soobaroyen and Poorundersing, 2008; Eker, 2009; Cheng, 2012). Characteristics are often referred to as the dimensions developed by Chenhall and Morris (1986). These Dimensions of MAS consist of scope, timelinessss, aggregation and integration. There are several ways researchers have tested the MAS relationship with performance. First, they have examined the dimensions

of MAS influence on performance (Chia, 1995; Bouwens and Abernethy, 2000; Soobaroyen and Poorundersing, 2008). Second, they saw some dimensions of the MAS, such as broad scope and timelinessss on performance (Tsui, 2001; Eker, 2009; Etemadi et al, 2009), scope and aggregation (Gul and Chia, 1994). Third, they examine the scope dimension on performance (Chong and Chong, 1997; Chong, 2004, Cheng, 2012).

This study explores the effects of the interaction between BP, MAS and MP. This study is different from previous studies as follows: 1) In a previous study (Tsui, 2001; Etemadi et al, 2009; Eker, 2009; Cheng, 2012) generalizations are done for managers in the private sector, while this research is conducted in the public sector, such as local government organizations. 2) Cheng (2012) examined MAS from the broad scope dimensions and Tsui (2001) and Eker (2009) examined MAS from broad scope and timelinesss. In contrast this study examines all dimensions of MAS including broad scope, timeliness, aggregation and integration as conducted by Soobaroyen and Poorundersing (2008). 3) In the research conducted by Tsui (2001) and Etemadi et al (2009) MAS is treated as an independent variable. In this study MAS is treated as a moderating variable.

The organization of this research paper is as follows: The first section introduces the paper. The second section provides a brief review of related literature, followed by the research methodology in the third section. The fourth section presents the main findings. The last section provides some concluding comments.

LITERATURE REVIEW

Several theories explain the management accounting system. These theories include: technical rational theory, contingency theory and institutional theory. The theory of rational technical, often called technical rational approach is commonly found in textbooks of management accounting (Houge, 2003: 9). This approach is based on neo-classical economic theory that considers the calculation of management accounting as a tool in decision-making that can help maximize organizational goals. According to management control theorists (Houge, 2003: 8) the rational technical approach can assist managers in making decisions that maximize organizational goals. Houge (2003: 9) says there are a few important things in a rational technical approach to consider including: 1) preset goals or consistent goal sets, 2) accounting is tool used to measure the efficiency of resource allocation for each level of the organization, 3) focus on the bureaucratic, hierarchical control and optimal resource allocation. In accounting, the rational technical approach is used to rationalize decision-making, for instance by using a system of budgetary control through standard setting.

Contingency theory in the organization claims that no universal model that can be accepted as an organizational system design. Gordon and Miller (1976) suggest useing contingency theory in the development of management accounting systems. Accounting information system development depends on the environment, organization and decision-making style (Gordon and Miller, 1976). Thus there are two factors that influence the effectiveness of MAS external factors and internal factors. Effectiveness is also highly dependent on characteristics of the MAS and various factors that help organizations achieve various levels of effectiveness. The factors that influence effectiveness are environmental factors, technology (Waterhouse and Tiessen, 1978) and business strategy (Simon, 1987). Changes in the organizations external environment require changes the management accounting system (Atkinson et al., 1997; Haldma and Laats, 2002; Waweru et al., 2004). Changes are needed because managers require management accounting systems in a special form that can help to make a decision on the environmental uncertainty and help monitor the progress of the strategy undertaken. (Baines and Langfield-Smith, 2003).

Institutional theory was discussed by Burns and Scapens (2000). They argue management accounting systems and regulations contain the organization's routines. Management accounting potentially become

institutionalized. Change and stability is not something independent but happens simultaneously in the MAS process. Doyle (2008) conducted a test using the Burn and Scapens (2000) concluded that in public setting, new management accounting practices become institutionalized with evident change in organizational rules and routines. The private for profit setting did not succeed in institutionalizing new management accounting practices (Doyle, 2008) . Various theories used to explain MAS show that MAS can not be explained by a single theory. The use of shared theories are complementary so that the understanding of MAS becomes more comprehensive.

DIMENSIONS OF MANAGEMENT ACCOUNTING SYSTEMS

MAS dimensions consist of scope, timeline, integration, and aggregation. This dimension is used to understand information from the user's perspective (Chenhall and Morris, 1986). According to Soobaroyen and Poorundersing (2008), the dimensions are a reliable measurement of quality and describing the sophistication of a MAS. The following describes each dimension.

Scope

Scope is a dimensional continuum between a narrow scope on the one end and the broad scope of the other (Bouwens and Abernethy, 2000; Chong and Eggleton, 2003). MAS with narrow information only describes the historical data of a financial nature and only focuses on events within the organization. A narrow-scope of information is only adequate for static job functions because rules and procedures are sufficient for effective performance. Such information serves to make the decision for an organizational environment that is predictable, stable, and for routine jobs. Normally narrow information is generated by traditional accounting systems. Broad scope information, consists of internal, external, quantitative, qualitative, financial and non-financial data oriented past and future (Gordon, 2000; Mia and Winata, 2008). These characteristics are required by managers in making managerial decisions that are not routine because it can not predict a dynamic environment (Chenhall and Morris, 1986). Such information is also capable of enabling managers to understand the relationship between inputs and outputs (Abernethy and Guthrie, 1994) and can also be used to objectively assess parts consistently with each other. Broad scope information can also help managers compare costs of alternative decisions, develop strategies, evaluate existing strategies, focusing on efforts that lead to improved performance and evaluate the contribution and performance of organizational units and members who participate in the budget process (Kaplan, 1988; Sprinkle, 2003). The scope of the breadth of the information can be used as attention-directing and problem solving (Chenhall and Morris; 1986; Tsui, 2001). Information described by the MAS can be categorized into three parameters; the focus, quantification and time horizon (Gordon and Miller, 1976; Gordon and Narayanan, 1984; Chenhall and Morris, 1986). Broad scope of information help facilitate control and evaluation through non-financial reporting of data relating to the behavior of subordinates. Non-financial information is generated and can be used to evaluate performance and control functions for each employee in meeting organizational goals (Lillis, 2002).

Timeliness

Timely information (timelinesss) describes the availability of information when needed and describes the frequency of reporting information. These dimensions can reduce uncertainty by allowing the manager to continuously adjust their activities to respond to changes required by each part of the organization. MAS with timely information is able to report events as soon as possible, as well as provide feedback to make decisions (Chenhall and Morris, 1986).

Aggregation

The aggregation dimension provides summary information for functional areas, such as a summary report of activities of business units, during a certain period or through a decision model (Chenhall and Morris, 1986). Information aggregated at the level of existing functionality provide the manager with information about the outcome of the results of decisions made by other parts. These dimensions make the manager able to process large amounts of information, compres information in a format that can be processed quickly, increase the amount of information being processed in a given time, and reduce information overload. Information that meets these characteristics allows managers to consider some alternatives and create a better understanding of the relationship between input and output both within the department and between departments. Thus the possibility of solving the problem finds a solution that will optimize the organization as a whole.

Integration

Dimensional integration provides a coordinating role between sub-units of mutual dependence. Integrated information can reduce uncertainty, encourage learning and get ideas. It is also possible for managers to learn how to adapt products and production methods in accordance with other departments and also allows managers to understand the different objectives in decision-making of different units (Bouwens and Abernethy, 2000).

Relationship Management Accounting Systems and Managerial Performance

In this study the relationship of accounting systems and management performance can be explained by the theory of rational technical. Information provided by management accounting systems in the theory of rational technical, especially in government organizations, can assist the allocation of resources efficiently and effectively (Houge, 2003). As this approach illustrates, if the organization changes, then the management accounting system will also change. New management accounting systems will provide information that can assist decision makers (Mool, 2000). Therefore, the management accounting system is a part, structure, and organization of the elements that make up the management control system (Simons, 1990).

Managerial performance is the performance of managers in leading his unit that can be measured by how the manager runs managerial functions like planning, organizing, staffing, leading and controlling (Weihrich and Koontz, 2004). Managerial performance describes the degree of success achieved by an individual (Mahoney et al, 1963). Emphasis on the technical theory of rational look at the benefits of the use of management accounting systems that provide information to assist decision makers in carrying out their functions. These functions include planning, organizing, staffing, leading and controlling. To ensure the existing management accounting systems can help management, it requires certain characteristics that describe the quality of the management accounting system.

Testing characteristics of MAS in research is done in various ways. There are researchers who see the overall dimensions, parts of the dimensions, or only one dimension. The results showed that all the characteristics broadscope, timelinesss, aggregation and integration have an influence on managerial performance (Mia and Clarke, 1999; Chia, 1995, and Soobaroyen and Poorundersing, 2008). The characteristics broad scope and timeliness have an influence on managerial performance (Tsui, 2001; Eker, 2009; Etemadi et al, 2009). The characteristics broadscope and agregation (Gul and Chia, 1994) have an influence on managerial performance (Mia 1993; Chong and Chong (1997). Several other researchers claim information systems serve as a learning system for improving the performance of managers (Ferris and Haskins , 1988) with high-performance resulting from the availability of information needed (Hiromoto,

1988). A study conducted by Macintosh and Williams (1992) also concluded that public sector information systems and accounting is very valuable for running a variety of managerial roles.

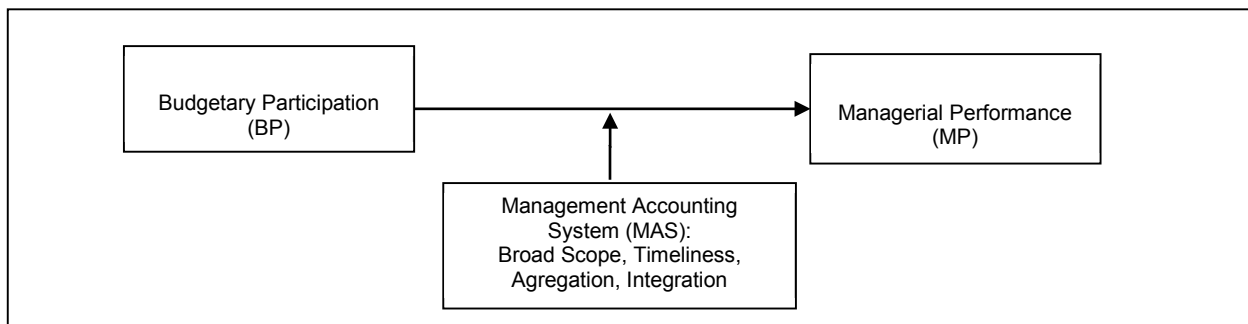Budgetary Relationship Participation and Managerial Performance

There are two theories used by researchers to explain the relationship between BP and the MP: motivation theory and contingency theory. Research results are not consistent in explaining the relationship of BP and MP which are based on motivation theory. Some researchers found no positive relationship between BP and MP (Brownell, 1982; Frucot and Shearon, 1991; Nouri and Parker, 1996; Charlos and Poon, 2000; Lopez et al, 2008; Eker, 2009). In contrast, other studies reported that participation has a negative effect (Cherrington and Cherrington, 1973; Locke and Schweinger, 1979) or even that two variables do not have a relationship (Kenis, 1979). Contingency theory states the effect of BP on MP is dependent on variables that are intervening and moderating. The variable relevant job information is an intervening variable between BP and MP as was demonstrated by researchers such as (Kren, 1992; Chong and Chong, 2002; Heath and Brown, 2007; Chong and Johnson, 2007). Tsui (2001), Eker (2009), and Cheng 2012 using MAS as a moderating variable between BP and MP with varying research results.

Research results from Tsui (2001) state that the interaction between BP and MAS is negative for Chinese managers and positive for western managers. The results of the study Eker (2009) state that interaction between BP and MAS has an influence on MP, where employees who have a higher performance have more use of MAS. Meanwhile, results of research conducted by Cheng (2012) state that broad scope MAS interacts non-monotonically towards MP. BMAS positively moderates the relationship between BP and MP if BMAS is high and moderates MAS Broadscope negatively if broad scope MAS is low. Several studies indicate that BP and MAS generally moderate the relationship between BP and MP. Based on study of the theory, the research hypothesis (H) can be put forward as follows:

H_1. Broad Scope MAS moderates the relationship between BP and MP
H_2. Timeliness MAS moderates the relationship between BP and MP
H_3. Aggregation MAS moderates the relationship between BP and MP
H_4. Integration MAS moderates the relationship between BP and MP

A summary of the research model describing the relationship between the variables can be seen in Figure 1.

Figure 1 Relationship between Variables

This Figure shows the relationship between variables. The Figure indicates linkages between the budgetary participation and managerial performance are moderated by management accounting system.

DATA AND METHODOLOGY

The objective of this study is to investigate the interaction between budgetary participaton (BP) and the characteristics of management accounting system (MAS) consisting of; broad scope (BMAS), timelinesss (TMAS), aggregation (AMAS) and integration (IMAS) on managerial performance (MP). To reach this objective, a survey questionnaire was used as a method to collect data from a Regional Work Unit listed in the Inspectorate Departement. Questionnaires were sent to the departement heads (top manager), head field (midle manager), section head/sub field head (lower manager) in the month of July 2013. A total of 220 questionnaires were sent and 104 were returned with a return of 47%.

Measurement: Managerial performance is measured through a self-evaluation questionnaire developed by Mahoney et al (1963). Respondents were asked to define his own managerial performance rating among nine Likert scale items on eight sub-dimensions of planning, Investigating, coordinating, evaluating, supervising, staffing, negotiating and representing and an overall score (Brownell, 1982; Brownell and McInnes, 1986; Tsui, 2001; Chong and Chong, 2002; Agbejule and Saarikoski, 2006; Frucot and White, 2006, Chong and Johnson, 2007; Yuen, 2007, Cheng 2012). Managerial performance value will be calculated by the average value of the eight sub-dimensions value. This variable has very high reliability which is shown by The Cronbarch'h alpha value of 0.91 (Nunnally, 1967).

BP was measured through six items by Milani (1975). The measurument has been widely used in previous studies (Tsui, 2001; Chong and Chong, 2002, Lau and Eggleton, 2003, Lau and Tan, 2006; Agbejule and Saarikoski, 2006; Frucot and White 2006; Chong and Jonnson 2007; Maiga and Jacobs 2007; Lopez et al, 2008; Eker, 2009; Sandalgaad et al, 2011; Cheng, 2012). Each item was measured on a seven-point 7 Likert scale, where 1= "strongly disagree", 7 = "strongly agree". The Cronbarch'h alpha values obtained was at 0, 92. This value indicates that scale internal reliability is high (Nunnally, 1967). MAS was measured through the MAS characteristics broad scope (BMAS), timelinesss (TMAS), aggregation (AMAS) and integration (IMAS), developed by Chenhall and Morris (1986). These measurements have been used by researchers such as Soobaroyen and Poorundersing (2008). There were in total 19 questions relating to the five BMAS information parameters; five for timelinesss, five for aggregation, and four for integration characteristics. The question posed by using a scale of 1 to 6 and 0, where 1= "not available", 6 = "always available", while 0= "not appropriate" Cronbarch'h alpha values for the dimensions BMAS was 0.81, TMAS was 0.81, IMAS was 0.82 and AMAS was 0.715.

Data Analysis : To determine whether broadscope, timelinesss, aggregation and integration moderate the relationship between BP and MP, the following moderated regression model is used.

$$MP = \alpha + \beta1(BP) + \beta2(BMAS) + \beta3(TMAS) + \beta4(AMAS) + \beta5(IMAS) + \beta6(BP)*(BMAS) + \beta7(BP)*(TMAS) + \beta8(BP)*(AMAS) + \beta9(BP)*(IMAS) + \varepsilon \quad (1)$$

Where (BP)*(BMAS), (BP)*(TMAS), (BP)*(AMAS) and (BP)*(IMAS) are interaction term; β1-9 the regression coefficient. If β1-9 is significant and positive we have empirical evidence to support the hypothesis.

RESULT AND DISCUSSION

Demographic characteristics are given in Table 1. Descriptive statistics for independent variable BP, moderating variable MAS and dependent variable managerial performance and their average score for each subdimension, characteristic and item for above variables are given in Table 2.

Table 1: Demographic Characteristics of Respondents

Characteristics	Frequency	%
Sex		
Male	54	51.9
Female	50	48.1
Age (years)		
<30	7	6.7
31-40	40	38.5
41-50	43	41.3
51 >	14	13.5

This table shows the demographics of respondents to this study. The second column reports the results of the frequency. Note: N =104.

Table 2: Descriptive Statistics

Variable	Mean	Std Deviation	Actual range	Theoretical range
Panel A: Descriptive Variable (N=104)				
MP	5.88	1.48	2.13 - 8.75	1.00 - 9.00
BP	4.77	1.46	1.00 -7.00	1.00 - 7.00
BMAS	4.25	1.07	1.20 - 6.00	0.00 - 6.00
TMAS	4.23	1.09	1.20 - 6.00	0.00 – 6.00
AMAS	4.92	1.03	1.80 - 6.00	0.00 – 6.00
IMAS	4.51	0.94	1.50 - 6.00	0.00 – 6.00
Panel B : Summarized Subdimension (N=104)				
MP				
Subdimention.1	6.30	1.467	2 – 9	
Subdimention.2	6.44	1.364	3 – 9	
Subdimention.3	6.83	1.458	3 – 9	
Subdimention.4	6.07	1.942	1 – 9	
Subdimention.5	5.81	2.168	1 – 9	
Subdimention.6	5.09	2.208	1 – 9	
Subdimention.7	5.12	2.209	1 – 9	
Subdimention.8	5.43	2.144	1 – 9	
BP				
Item 1	4.85	1.653	1 – 7	
Item 2	5.22	1.723	1 – 7	
Item 3	4.63	1.685	1 – 7	
Item 4	4.41	1.825	1 – 7	
Item 5	4.75	1.671	1 – 7	
Item 6	4.62	1.656	1 – 7	
BMAS				
Characteristic 1	4.28	1.390	0 – 6	
Characteristic 2	4.01	1.445	0 – 6	
Characteristic 3	4.44	1.406	0 – 6	
Characteristic 4	4.48	1.393	0 – 6	
Characteristic 5	4.02	1.421	0 – 6	
TMAS				
Characteristic 1	4.22	1.238	0 – 6	
Characteristic 2	3.88	1.572	0 – 6	
Characteristic 3	4.82	1.283	1 – 6	
Characteristic 4	4.37	1.421	0 – 6	
Characteristic 5	3.87	1.619	0 – 6	
IMAS				
Characteristic 1	4.11	1.468	0 – 6	
Characteristic 2	4.68	1.248	1 – 6	
Characteristic 3	4.60	1.211	1 – 6	
Characteristic 4	4.67	1.218	1 – 6	

This table shows descriptive statistics . Panel A shows results of the descriptive variable. Panel B shows summarized subdimension results.

A correlaation matrix for budgetary participation, MAS characteristic, and performance is given in Table 3. The correlation matrixs show that BP is positively correlated with managerial performance and MAS characteristics as well, except the characteristic agregation (AMAS).

Table 3: Correlation Matrix

Variable	MP	BP	BMAS	TMAS	AMAS	IMAS
Managerial Performance (MP)	1	0.399**	0.297**	0.270**	0.105	0.211*
BP	0.399**	1	0.078	0.110	0.079	0.082
BMAS	0.297**	0.078	1	0.633**	0.307**	0.487**
TMAS	0.270**	0.110	0.633**	1	0.404**	0.521**
AMAS	0.105	0.079	0.307**	0.404**	1	0.773**
IMAS	0.211*	0.082	0.487**	0.521**	0.773**	1

*This table shows the correlation matrix. The table indicates correlation between MP and BP, BMAS, TMAS, AMAS, IMAS. BP and BMAS, TMAS, AMAS, IMAS. BMAS and TMAS, AMAS, IMAS. TMAS and AMAS, IMAS. AMAS and IMAS. **. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).*

Table 4 show the main effect of BP, BMAS, TMAS, AMAS and IMAS, interaction effect of BP and BMAS, the interaction effect of BP and TMAS, the interaction effect of BP and ASAM, the interaction of BP and ISAM on managerial performance. As Table 4 indicates, the effect of BP, BMAS, interaction effect of BP and BMAS, and the interaction BP and IMAS are significant. The first hypothesis (H_1) that BP and BMAS have impact on managerial performance is supported and the fourth hypothesis (H_4) that BP and IMAS have impact on managerial performance is supported. Table 4 contains the parameter estimate for main variables (BP, BMAS, TMAS, AMAS, IMAS) and interaction variables (BP*BMAS, BP*TMAS, BP*AMAS, BP*IMAS). Even though the interaction BP and BMAS is significant, its coefficient is negative. This confirms that the combination of BP and BMAS has an adverse impact on managerial performance in local government organization. The coefficient $\beta 7$ and $\beta 8$ which shows the interaction between TMAS and AMAS is insignificant, meaning that H2 and H3 are not supported.

Table 4: Regression Result

Variable	Coefficient	Estimated Value	SE	t	Sig	Hyphotesis	Result
Intercept	b_o	-1.331	2.538	-0.524	0.601		
BP	b_1	1.227	0.542	2.262	0.026*		
BMAS	b_2	1.383	0.671	2.060	0.042*		
TMAS	b_3	0.090	0.697	0.128	0.898		
AMAS	b_4	0.942	0.819	1.151	0.253		
IMAS	b_5	-1.250	0.883	-1.416	0.160		
BP*BMAS	b_6	-0.237	0.131	-1.805	0.074**	H1	Supported
BP*TMAS	b_7	-0.005	0.136	-0.036	0.971	H2	Not supported
BP*AMAS	b_8	-0.240	0.162	-1.484	0.141	H3	Not supported
BP*IMAS	b_9	0.310	0.177	1.754	0.083**	H4	Supported

*This table shows the regression results include the coefficient, estimated value, SE, t value and sig. Notes: N=104; R^2=0.300 . adjusted R^2= 0.233; * significant at level 0.05; ** significant at level 0.1.*

CONCLUSIONS

The goal of this research is to investigate the interaction effect between BP and the MAS on MP. In this study, BP is treated as an independent variable and dimensions of MAS, consisting of BMAS, TMAS, AMAS and IMAS as moderating variables and MP as dependent variable. A survey questionnaire was used to collect data from a Regional Work Unit. Questionnaires were sent to departement heads representing top managers, head field representing middle managers, section head/sub field head

representing lower manager listed in the Inspectorate Departement. A moderated regression is used to test the hypotheses proposed. Only two of the dimensions of the MAS; BMAS, IMAS and BP interact influence MP. BP and IMAS interact at a significant level to positvely influence M, while BP and BMAS interact at a significant level to negatively influence MP. This study supports the results of research by Tsui (2001) and Etemadi et al (2009) which states that the MAS (for broadscope dimensions and timelinesss) and managerial performance has a negative correlation to the high participation of managers of Chinese and Iran nationality. The empirical evidence of this study shows two conflicting findings on the dimensions of MAS; the first that the broadscope dimension showed a negative influence while the second dimension of integration to show a positive effect, although the effect is not strong. However, this condition indicates that the MAS-dimensional concept that is used in the private sector can not be fully generalized to public sector organizations, especially government organizations.

Managerial implications that can be drawn from the empirical evidence of this study include 1) BP and BMAS is a management tool that can be used to improve managerial performance. 2) Integration has the role of moderation between BP and BP MP and therefore must be considered to achieve integration within the organization. 3) The results between the dimensions of the MAS and the contrary in this study showed characteristics of MASs of different government organizations compared to characteristics of MAS on private organizations. This study has various limitations including; 1) constraints imposed by survey research methodology that uses non-targeted questionnaire respondents and has non-response bias (Birnberg, Shield and Young, 1990). 2) This research only focuses on the effect of the interaction between BP and MAS towards MP, while there are some other moderating variables such as locus of control and decentralized organizational culture that should be considered in further research.

REFERENCES

Agbejule, A. and Saarikoski, L. (2006). "The effect of Cost Management Knowledge on the Relationship between Budgetary Participation and Managerial Performance", *The British Accounting Review*. 38 (4): 427-440.

Abernethy, M. A., and Guthrie, C.H. (1994). "An Empirical Assessment of The "fit" Between Strategy and Management Information System Design," *Accounting and Finance*. 34: 49–66.

Atkinson, A. A., Balakrishnan , R., Booth, P., Cote, J. M, Groot, T., Malmi, T., Roberts, H., Uliana, E. and Wu, T. (1997). "New Directions in Management Accounting Research," *Journal of Management Accounting Research*. 9: 79-101.

Baines, A. and Langfield-Smith, K. (2003). "Antecedents to Management Accounting Change: A Structural Equation Approach," *Accounting, Organizations and Society*. 28 (7-8): 675-6.

Birnberg, J,G., Shield, M.I., and Young, S.M. (1990). "The Case for Multiple Methods in Empirical Management Accounting Research (With an Illustration from Budget Setting)," *Journal of Management Accounting Research*. (Fall): 33-66.

Burns, J. and Scapens, R. (2000). "Conceptualising Management Accounting Change: An Institutional Framework." *Management Accounting Research*. 11 (1): 3-25.

Bouwens, J., and Abernethy, M.A. (2000). "The Consequences of Customization on Management Accounting System Design," *Accounting, Organization and Society*. 25 (3): 221-41.

Brownel1, P. (1982). "Participation in Budgeting Process: When in Works and When it Doesn't," *Jurnal of Accounting Literature*. 1: 124-153.

Brownell, P. and McInnes, M. (1986). "Budgetary Participation, Motivation and Managerial Performance," *The Accounting Review*. 61 (4):586-600.

Charlos, P., and Poon, M.C.C. (2000). "Participation and Performance in Capital Budgeting Teams," *Behavioral Research in Accounting*. 12: 197-229.

Cheng, Min-Tsung. (2012). "The Joint effect of Budgetary Participation and Broad Scope Management Accounting Systems on Management Performance," *Asian Review of Accounting*. 20: 184-197.

Chenhall, R.H., and Morris, D. (1986). "The Impact of Structure, Environment and Interdependence on the Perceived Usefull of Management Accounting System," *The Accounting Review*. 61 (1): 16-35.

Cherrington, D. J. and Cherrington, J. O. (1973). "Appropriate Reinforcement Contingencies in the Budgeting Process," *Journal of Accounting Research*. *Supplement*. 225-253.

Chia, Y.M. (1995). "Decentralisation, Management Accounting System (MAS) Information Characteristics and Their Interaction Effects on Managerial Performance: A Singapore Study," *Journal of Business Finance and Accounting*. 22 (6): 811-30.

Chong, V.K. (2004). "Job-Relevant Information and its Role with Task Uncertainty and Management Accounting Systems on Managerial Performance," *Pacific Accounting Review*. 16 (2): 1-23.

Chong, V.K. (1996). "Management Accounting Systems, Task Uncertainty and Managerial Performance: A Research Note," *Accounting, Organizations and Society*. 21(5): 415-21.

Chong, V.K. and Chong, K.M. (1997). "Strategic Choices, Environmental Uncertainty and SBU Performance: A Note on the Intervening Role of Management Accounting Systems," *Accounting & Business Research*. 27 (4): 268-276.

Chong, V.K. and Eggleton, R.C. (2003). "The Decision-Facilitating Role of Management Accounting Systems on Managerial Performance: The Influence of Locus of Control and Task Uncertainty," *Advance in Accounting*. 20: 165-197.

Chong, V.K., and Chong, K.M. (2002). "Budget Goal Commitment and Informational Effects of Budget Participation on Performance: A Structural Equation Model," *The Behavioral Research In Accounting*.14:66-86.

Chong, V.K., and Johnson, D.M. (2007). "Testing a Model of Antecenden and Consequence of Budgetary Participation on Job Performance," *Accounting and Business Research*. 37 (1): 3-19

Doyle, G. (2008). "An Instituational Framework Analysis of Managment Accounting Innovations: A Comparison of for-Profit and not-for Profit Health Care Settings," *Working Paper:* UCD. Business Schools

Eker, M. (2009). "The Impact of Budget Participation and Management Accounting System on Performance of Turkish Middle Level Managers," *Akedeniz*. 1.1. BF Dergisi. 105-126.

Etemadi, H., Dilami, Z.D., Bazaz, M.S. and Parameswaran, R. (2009). "Culture, Management Accounting and Managerial Performance: Focus Iran," *Advances in Accounting, Incorporating Advances in International Accounting*. 25:216-225.

Ferris, K.R., and Haskins, M.E. (1988). "Persfective on Accounting Systems and Human Behaviour," *Accounting, Auditing and Accountability Journal.* 1 (2): 3-18.

Frucot, V., and Shearon, W.T. (1991). Budgetary participation, locus of control, and mexican managerial performance and job satisfaction, *The   Accounting Review* 66: 80-98.

Frucot, V., and White, S. (2006). "Managerial Level and Effects of Budgetary Participation on Managers," *Managerial Auditing Journal.* 21 (2):191-206.

Gordon, L.A., and Miller, D. (1976). "A Contigency Frame Work for the Design of Accounting Information System," *Accounting, Organizations and Society*. 3 (1): 59-69.

Gordon, L. A. (2000). "*Managerial Accounting: Concepts and Empirical Evidence*," Third Edition. McGraw-Hill.

Gordon, L.A. and Narayanan, V.K. (1984). "Management Accounting systems, Perceived Environmental Uncertainty and Organizational Structure: An Empirical Investigation," *Accounting, Organization and Society.* 9: 33-47.

Gul, F.A., and Chia, Y.M. (1994). "The Efect of Management Accounting Systems,   Percived Environmental Uncertainty and Decentralization on Managerial Performance: A Test of Three-Way Interaction," *Accounting, Organization and Society.* 19 (4/5): 413-26.

Gul, F.A. (1991). *"*The Effects of Management Accounting Systems and Environmental Uncertainties on Small Business Managers' Performance," *Accounting and Business Research.* 22: 57-61.

Haldma, T. and Laats, K. (2002). Contingencies influencing the management accounting practices of estonian manufacturing companies,   *Management Accounting Research* 13: 379-400.

Heath, R. S and Brown, J.F. (2007). "Are Examination of the Effect of Job Relevan Information on Budgetary Participation- Job Performance Relation during an Age of Employee Empowerment*,"* *Journal of Applied Business Research.* 23: 111-124

Hiromoto, T. (1988). "Another Hidden Edge-Japaness Management Accounting," *Harvard Business Review* (Juli/Agustus): 22-26.

Houge, Z. (2003). *"Strategic Management Accounting. Concepts, Process and Isssues*," Second Edition. USA: Spiro Press USA.

Kaplan, R. S. (1988). "One Cost System Isn't Enough," *Harvard Business Review.* 66 (1): 61-66
Kenis, I. (1979). "Effect Of Budgetary Goal Characteristics on Managerial Attitudes and Performance," *The Accounting Review.* 54: 707-21.

Kren. (1992). "Budgetary Participation And Managerial Performance: The Impact Ofinformation and Environmental Volatility," *The Accounting Review.* 511-526.

Lau, C. M., and Tan, S.L.C. (2006). "The Effects of Job Relevan Information Andparticipation On Relationship Between Evalutive Style And Job Satisfaction," *Working Paper.*

Lau, C.M. and I.R.C. Eggleton. 2003. "The Influence of Information Asymmetry and Budget Emphasis on the Relationship Between Participation and Slack," *Accounting and Business Research*. 33 (2): 91-104.

Lillis, A. M. (2002). "Managing Multiple Dimension of Manufacturing Performance an Exploratory Study," *Accounting Organizations and Society*. 27(6): 497-529.

Lopez, M. A., Stammerjohan, W.W, and Rigsby, J.T. (2008). "An Update on Budgetary Participation, Locos of Control, and The Effects on Mexican Managerial Performance and Job Satisfaction," Puerto Rico, USA. *IABR and Conference Procedinng.* 1-13.

Locke, E. A., and Schweinger, D. M. (1979). "Participation In Decision-Making: One More Look," in B. M. Staw (Ed.), *Research in Organizational Behavior*. Greenwich: Conn., JAI Press. 265-339.

Macintosh, N.B., and Williams, J.J. (1992). "Managerial Role and Budgeting Behavior," *Behavioral Research in Accounting.* 4: 23-48.

Mahoney, T. A., Jerde, T.H. and Carroll, S.J. (1963). "*Development of Managerial Performance: A Research Approach*," Cincinnati: South-Western.

Maiga, A.S., and Jacobs, F.A. (2007). "Budget Participation's Influence on Budget Slack: The of Fairness Perceptions, Trust and Goal Commitment," *Jamar.* 1: 39- 58.

Mia, L and Winata, L. (2008). "Manufacturing Strategy, Broad Scope MAS Information and Information and Communication Technology," *The British Accounting Review.* 40: 182–192.

Mia, L. (1993). "The Role of MAS Information in Organization: An Empirical Study," *British Acounting Review.* 25 (3): 269-85

Mia, L. And Clarke, B. (1999). "Market Competition, Management Accounting Systems and Business Unit Performance," *Management Accounting Research.* 10 (2) 137-58.

Mia, L. and Chenhall, R.H. (1994). "The Usefulness of Management Accounting Systems, Functional Differentiation and Managerial Effectiveness," *Accounting, Organizations and Society.* 19 (1): 1-13.

Milani, K. (1975). "The Relationship of Participation in Budget-Setting, to Industrial Supervisor Performance and Attitudes: A Field Study," *The Accounting Review.* 50 (2): 274-284.

Mool, J. (2000). "The New Institutionalism, Organizational Change and Management Control Systems: A Case Study of An Australian Local Government Entity".

Moores, K. and Yuen, S. (2001). "Management Accounting System and Organizational Configuration: A Life-Cycle Perspective," Accounting, Organizations and Society. 26 (4-5): 351-389.

Nouri, H.,and Parker, R.J. (1996). "The Effect of Organizational Commitmen on the Relation Between Budgetary Participation and Budgetary Slack," *Behavioral Research in Accounting*. 74-90.

Nunnally. J. C. (1967). "*Psychometric Theory,"* New York: Mc-Graw-Hill.

Sandalgaard, S., Bukh, P.N. and C.S.Poulsen. (2011). "The Interaction Between Motivational Disposition and Participative Budgeting: Evidence from Bank*," Journal of Human Resource Costing and Accounting.* 15 (1): 7-23.

Simons, R. (1987). "Accounting Control Systems and Business Strategy: An Empirical Analysis," *Accounting. Organization and Society.* 12: 357-374.

Simons, R. (1990). "The Role of Management Control Systems in Creative Competitive Advantage: New Perspective," *Accounting, Organization and Society.* 15: 127-143.

Soobaroyen, T. and Poorundersing, B. (2008). "The Effectiveness of Management Accounting Systems: Evidence from Functional Managers in a Developing Country," *Managerial Auditing Journal.* 23 (2): 187-219.

Sprinkle, G. B. (2003). "Perspective on Experimental Research in Management," *Accounting. Organization and Society.* 287-318.

Tsui, J.S.L. (2001). "The Impact of Culture on Releationship Between Budgetary Participation, Management Accounting Systems and Managerial Performance: An Analysis of Chinese and Western Managers," *Accademy of Management Review.* 36 (2): 125-146.

Waweru, N.M., Hoque, Z and Uliana. (2004). Management Accounting Change in South African: Case Studies from Retail Services," *Accounting, Auditing and Accountability Journal.* 17 (5): 675-705.

Waterhouse, J. H. and Tiessen, P. (1978). "A Contingency Framework for Management Accounting Research," *Accounting, Organizations and Society.* 3: 65-76.

Weihrich, H and Koontz, H. (2004). "*Management: A global Perspectve,*" Eleventh Edition. USA: McGraw- Hill Higher Education.

Yuen, D. (2007). Antecendens of Budgetary Participation: Enhancing   Employee Job Performance," *Managerial Auditing Journal.* 22 (5): 533-548.

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