

**THE CORRELATION AMONG THE FACTORS OF
IMPLEMENTATION, THE SYSTEM DEVELOPMENT, AND THE
RESULT OF PERFORMANCE MEASUREMENT SYSTEM:
A Study Conducted in The Regency of Sumba Timur**

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ABSTRACT

This study is aimed to examine the relationship among factors determining the success or failure of the implementation of performance measurement systems with the development of performance measurement systems, performance accountability, and the use of performance information in the government institutions and to examine the impacts of the development of performance measurement systems on the performance accountability and the use of performance information. This research was carried out in the Local Government of East Sumba Regency. The research respondents were the government officers of Echelon II, III, and IV. The samples were selected using purposive sampling. 509 questionnaires were distributed and 267 were used. Data were analyzed using Ordinary Least Square (OLS).

This research finds that organization culture and resources have relationship with the development of performance measurement systems. In contrast, the limited information systems, difficulties in determining the performance metrics, management commitment, decision-making authority, and training do not have relationship with the development of performance measurement systems. The limited information systems, difficulties in determining the performance metrics and training do not have relationship with the performance accountability, but management commitment, decision-making authority, organization culture, and resources have relationship with the performance accountability. The difficulties in determining the performance metrics, decision-making authority, organization culture, and resources have relationship with the use of performance information, whereas the limited information systems, management commitment, and training do not have relationship with the use of performance information. Further, the development of performance measurement systems directly influences the performance accountability and the use of performance information and indirectly influences the use of performance information through the performance accountability.

Keywords: *performance measurement, performance accountability, performance information, local government*

INTRODUCTION

The increasing public demand of good governance and clean government and as well as the bad image of Indonesian Government bureaucracy has provoked the government to implement the performance measurement system. It is a method or an instrument used to record and evaluates the achievement of, activity execution based on objectives, target and strategy so the progress of the organization, and the more qualified decision-making and accountability can be identified (Mahsun, 2006).

As widely practiced by other countries, Indonesian government institutions also has implemented the performance measurement system. It is proved by the issue of President's Instruction Number 7, 1999 about the Accountability of the Government Institution Performance and the Decree of State Administration Institution (LAN), Number 589/IX/Y/1999 about the Guidelines of Arranging Report on the Accountability of the Government Institution Performance of which has been improved by the Decree of State Administration Institution Number 239/IX/6/8/2003. Subsequently, in 2006, the government issued another regulation that fosters the implementation of the performance measurement system in Indonesia, namely; the Regulation of the government of Indonesia Republic Number 8, 2006, about the Report on the Government Institution Finance and Performance. This regulation obliges every entity (the Central Government, the Regency Government, the State Ministry Institution, and the State General Treasurer) to arrange and present reports on finance and performance. This regulation implies the seriousness of the government towards the improvement of the government organization, and implies its support towards the establishing of performance-based management for the government organization. Therefore, researches about performance measurement for the government institutions/organization are

currently relevant issues since the performance measurement for the government organization still requires a continuous improvement.

The Accountability of the Government Institution Performance Report (AGIPR/LAKIP) serves as the main media the puts the government institution performance into breakdown. It communicates the achievement of organization performance in a fiscal year which has correlation with the government institution objectives and targets. By fact, the ability of performance measurement system to promote performance, transparency, and the Accountability of the Government Institution Performance (AKIP) is often still debatable and questionable. This situation is sensible since some outcomes of the research still indicate the constraints in implementing the performance measurement system. The problem rises either at the level of the development of performance measurement system or at the level of the use of the implementation of performance measurement system (Nurkhamid, 2007).

To ensure that the implementation of performance measurement system work well, it is necessary to find the substantial problems that underlie it. Therefore, this research is aimed at examining and proving the correlation among the limited information system, the difficulties in determining the performance metrics, the management commitment, the decision-making authority, the trainings, the organizational behavior, and resources with the development of performance measurement system, the accountability of performance. In addition, it is to identify the indirect influence towards the use of performance information through the performance accountability in government institutions.

There are some reasons why this research is interestingly worth conducting. *First*, a problem is still found in implementing the performance measurement system, especially in Indonesia. It is indicated by the finding of Harimurti (2004) revealing that outcome indicators, which were used by the Tourism and

Culture Board of Sleman Regency, are not measurable, unspecific, and absurd so that it allows a misinterpretation. The similar condition is found by Mahmudi and Mardiasmo (2004), the scope of performance indicator developed by Sleman Regency turns out to be shallowed, or limited, as it does not cover some elements of the consumer's satisfaction, the quality of service, the area of service, the productivity, and efficiency.

Second, a large benefit can be obtained from the implementation of performance measurement system, if it is carried out properly. Parker (1996) and Sadjiarto (2000) mentioned that there are five advantages of performance measurement on the government entity, namely: a) promoting the quality of decision-making, b) promoting the internal accountability, c) promoting the public accountability, d) supporting the strategy plan and the objectives settlement, and e) allowing the entity to determine the effective use of resources.

Third, the opportunity of designing and implementing performance measurement system more effectively in the future, for the betterment of decision-making can result in the enhancement of performance and accountability. Mahmudi (2010) revealed that the development of public sector in Indonesia in the last decade has shown significant progress. However, it is necessary to bear in mind that the agenda of public sector reforms have not come to an end, but instead, require a sustaineous improvement. The pulic sector organization should promote its performance sustainously and continuously. Since it is a dynamic sector, it is necessary to always keep up with the development of organizational, social, cultural, political, and technological environment.

Fourth, there are only a few researches that reveal the condition of the implementation of performance measurement system which has been carried out by Indonesian government institution, as well as its influence on the

outcome of the performance measurement system (Nurkhamid, 2007).

Fifth, it is an effort to contribute to the development of public sector accounting in Indonesia. Based on the concept of value for money, the success of an organization is measured through the level of efficiency, effectiveness, and economicalness in its operational activity. The performance measurement system is one of the many ways to measure the level of efficiency, effectiveness, and economicalness of the public sector service which have been carried out by the government institutions. The use of performance metric is very important to judge the efficiency and effectiveness of an activity or a program accomplished (Mardiasmo, 2002).

Therefore, in order to measure the level of efficiency, effectiveness, and economicalness, correctly, the use of performance indicator must be accurate. This way, a more accurate performance information (input, output and outcome) can be obtained.

In relation with this research, it is important and useful to understand some factors that are influential to the implementation of performance measurement system to enhance the quality of performance measurement system development, including the use of appropriate performance indicators. With the appropriate performance indicator, the level of efficiency, effectiveness, and economicalness can be obtained as well. Besides, with the level of a qualified development of performance measurement system, the accountability of government performance and the use of performance information to foster the decision-making can be obtained (Nurkhamid, 2007).

This research is referred to a study done by Cavalluzzo and Ittner (2003), and Nurkhamid (2007). The difference between Cavaluzzo and Ittner's (2003) and Nurkhamid's research (2007) is the addition of resource variable which is expected to affect

the implementation and the success of the performance measurement system.

Resource variable is added to this research because resource is an important necessity that an organization should own to implement the performance measurement system. Without resource, the implementation of performance measurement system will experience constraints. This argument is strengthened by Goggin's (1990) in Ichsan (2007) stating that the bigger budget is allocated to a policy, the faster it will be to achieve the objectives towards the implementation process, and finally, the bigger chance for the implementation there will be. Other than that, Susanto (1997) in Sarwom (2007) stated that organization asset which is the most important and should draw special attention by the management is human resource. This idea centralizes on the fact that human resource is the ever-existing element in every organization. Human settles the objectives and develops innovation to achieve the goals of the organization. Human is the only resource that can make other organization resources work well and that has a direct impact on the organization's prosperity.

This research proposes some questions: (1) Does the limited information system, the difficulties in determining the performance metrics, the management commitment, the authority of decision-making, trainings, organizational behavior, and resources have correlation with the development of performance measurement system? (2) Does the limited information system, the difficulties in determining the performance metrics, the management commitment, the authority of decision-making, trainings, organizational behavior, and resources have correlation with the performance accountability? (3) Does the limited information system, the difficulties in determining the performance metrics, the management commitment, the authority of decision-

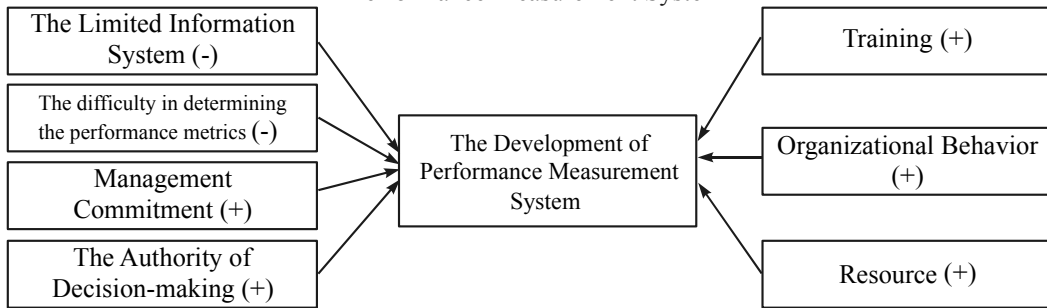
making, trainings, organizational behavior, and resources have correlation with the use of performance information? (4) Does the development of the performance measurement system directly influence the performance accountability and the use of performance information, and indirectly influence the use of performance information through the performance accountability?

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

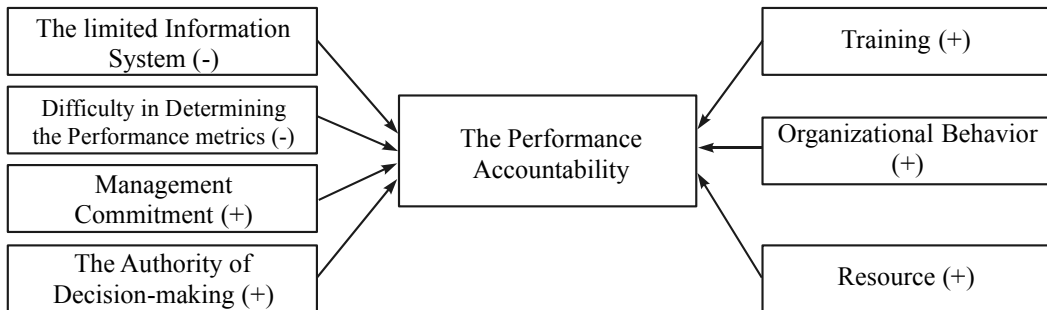
According to the Regulation of Ministry of Empowerment of Government Officials Number PER/09/M.PAN/5/2007 about the General Guidelines for the Settlement of the Main Performance Indicator at the Government Institution Environment, stating that the government institution performance is defined as the description of the level of the government institution achievement in reaching its objectives and targets as the breakdown of its vision, mission, and strategy that indicates the success or the failure level in implementing the activities in line with the program and policies settled. Where as, the performance metrics, according to this regulation is a management activity especially to compare the level of performance achieved through standard procedure, plans or targets using the performance indicator settled.

Julnes and Holzer (2001) asserted that the adoption and the implementation of the performance measurement system are influenced by some rational/technocratic factors and cultural/political factors. However, the policy of adoption is much more influenced by rational factors, namely, information, resources, orientation of objectives and external stipulation. Whereas the implementation of the system is more influenced by political factors, namely, internal group, external group and organizational behavior.

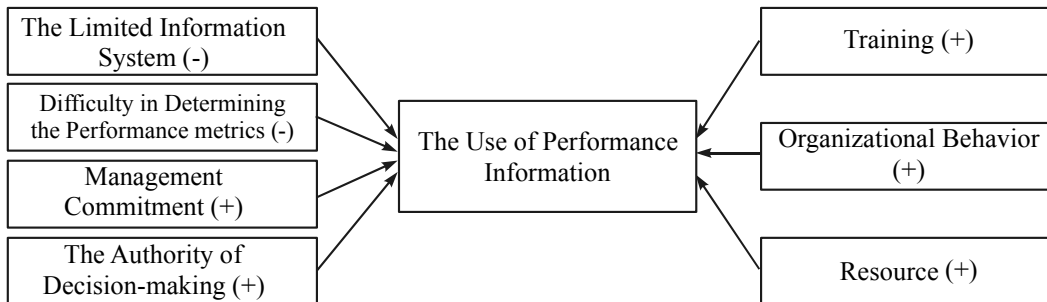
Correlations among Factors of Implementation with The Development of Performance Measurement System



Correlations among Implementation Factors with the Performance Accountability



Correlations among Implementation Factors with The Use of Performance Information



Correlations among the Development of Performance Measurement System with the Performance Accountability and the Use of Performance Information

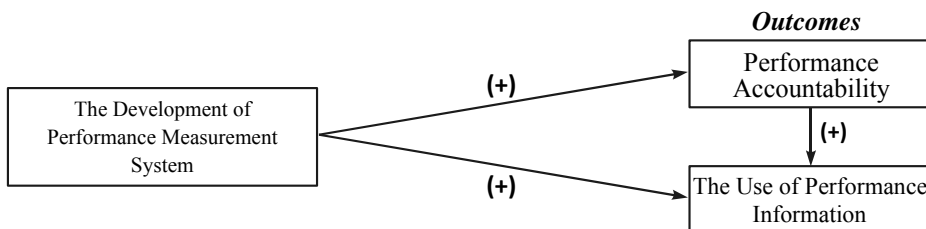


Figure 1. The Research Framework

In relation with the application of the performance measurement result, The Urban Institute (2002) reveals that organizational climate and behaviors, adequate resources (fund, time, and human resource), the process of performance measurement system as well as the organization's technology influence the level of the use of performance information to foster the decision-making. The previous studies on the changes of information system, innovation of management accounting, and the public sector reforms identify the factors that influence the implementation and the success of performance measurement. Such technical factors include the limited information system, the difficulties in determining the performance metrics, and organizational factors include management commitment, authority of decision-making, trainings, and legislative mandate (Kwon and Zmud, 1987 in Cavalluzzo and Ittner, 2003; Shields and Young, 1989).

Based on the above literature, some factors assumed to have correlation with the development of performance measurement, the performance accountability, and the use of performance information are the limited information system, the difficulties in determining the performance metric, the management commitment, the authority of decision-making, trainings, organizational behavior, and resources.

The limited information system

Technology is one of the key factors that determine the success of implementing an information system. Organization that does not have accurate and adequate technology usually finds difficulties in designing, implementing, and evaluating the product and services produced (Poole, *et al.* 2001). The use of performance measurement system for the purpose of accountability and decision-making will be limited, if this limited information system refrains the managers from receiving a reliable, punctual data (Jones, 1993; Kravcuk and Schack, 1996).

According to Artley (2001), one of the factors that can hinder the performance accountability at an organization are the incomplete, incredible, unpunctually-reported performance information that cannot be used. The Urban Institute (2002) stated that one of many factors that can influence the performance information is the ability of the organization's information system to give a valid, reliable, punctual and effective performance data.

Based on the elaboration above, the hypothesis can be formulated as follows:

H1_a : The limited information system has negative correlation with the development of performance measurement system.

H1_b : The limited information system has negative correlation with the performance accountability.

H1_c : The limited information system has negative correlation with the use of performance information.

The Difficulties in Determining the Performance Metrics

GAO (1997) stated that the difficulties in determining the performance metrics can result in an effect that an organization develops an incomplete or uninformative performance metric as required by GPRA. That is why the difficulties in determining the performance metrics will lead to the limited use of performance metrics for the decision-making and the accountability, while the performance metric (indicator) is used as the fundamental to which policy planning and controlling, giving compensation to staff, giving essential information for the management to control performance at all organizational level is referred.

Other than that, the performance metric (indicator) is used to make report on the performance result. It is related to the fulfillment of the performance accountability. A good performance indicator can motivate and direct (the human resource) to achieve the best re-

sult, so that it will not give a distorted and biased description of performance that does not reflect the actual condition. The performance indicator can boost up the accountability of management by giving responsibility explicitly and giving a proof of success or failure (Mahmudi, 2010).

Based on the above explanation, the hypothesis can be formulated as follows:

- H2_a: The difficulties in determining the performance metrics have negative correlation with the performance measurement system.
- H2_b: The difficulties in determining the performance metrics have negative correlation with the accountability of performance.
- H2_c: The difficulties in determining the performance metrics have negative correlation with the use of the performance information.

Management Commitment

In the process of designing, implementing and using the performance measurement system, obtaining management commitment is the first step that should be done. If the management is responsible to manage organization or certain program but at the same time does not intend to use the performance measurement and not committed to supporting the development of performance measurement system, and gives support to the designing and implementing the performance measurement system, all the efforts will be useless, unfruitful and will fail (Poister, 2003).

Shields (1995) stated that the top management's support for the innovation is an important matter for the success of the implementation because manager can focus on the required resources, objectives, and strategy; can deny resources that do not support innovation; and provide tactical aid to motivate or push individuals or groups who are not in favor of innovation. A high commitment of the

management will enhance the performance accountability (Artley, 2001) and the use of performance information (The Urban Institute, 2002).

Based on the above description, the hypothesis can be formulated as the followings:

- H3_a : The management commitment has positive correlation with the development of performance measurement system.
- H3_b : The management commitment has positive correlation with the accountability of performance.
- H3_c : The management commitment has positive correlation with the use of performance information.

Authority of Decision-making

Anderson and Young (1999) stated that managers who believe that innovation can support the decision-making activities would prefer to implement and use the performance metrics. On the other hand, managers who have less authority to make decision, based on the latest information, will show a lower support to the innovation done. This statement implies the positive correlation between the level of authority of decision-making, the level of system development, and the use of performance information for the decision-making.

The implementation of performance measurement system often fails, because the employee's involvement is ignored. The involvement of the program staff in developing the performance measurement system is one of the many factors that influence the level of the use of performance information in an organization (The Urban Institute, 2002). The authority of decision-making is also a factor that affects the accountability of performance. If the boundaries of authority and responsibility are not settled clearly, it will be difficult to determine the location of the accountability (Artley, 2001).

Based on the above explanation, the hypothesis can be formulated as follows:

- H4_a : The authority of decision-making has positive correlation with the development of performance measurement system.
- H4_b : The authority of decision-making has positive correlation with the performance accountability.
- H4_c : The authority of decision-making has positive correlation with the use of performance information.

Trainings

Shields (1995) stated that training in designing, implementing and using the accounting management innovation allows the organization to articulate the correlations of the new practices and the organization objectives; providing a mechanism for the employees to understand, accept and feel comfortable with the innovation; and to prevent employees from feeling oppressed or overwhelmed towards the process of implementation.

The organization personnels who own understandings and technical ability in term of the implementation of performance measurement system can be of help to succeed the implementation of performance of measurement system (The Urban Institute, 2002). Some of the required technical abilities are among other others, analyzing data, presenting performance report in an easy-to-understand form, and making special report that is in line with the characteristic of the stakeholders. The numbers of personnel who understand the process of performance measurement quantitatively or qualitatively will affect the performance accountability (Artley, 2001) and the use of performance information (The Urban Institute, 2002).

Based on the above explanation, the hypothesis can be formulated as below:

- H5_a : Training has positive correlation with the development of performance measurement system.
- H5_b : Training has positive correlation with the accountability of performance.
- H5_c : Training has positive correlation with the use of performance information.

Organizational Behavior

Organizational behavior is believed to be the main decisive factor towards the success of economic performance of an organization. According to Lako (2002), a strong, adaptive organizational behavior has a significant influence on the success of economic and managerial performance of an organization in long terms. Priharjanto (2005) has proved that organizational behavior has positive influence on the organization performance, meaning that the low organizational behavior will likely result in unoptimal policy/program/activity. That is why the development of good organizational behavior will help the organization become more effective and have high performance so that the organization objectives can be achieved more easily (Sulistiyani and Utomo, 2004). The Urban Institute (2002) identifies some factors that can influence the use of performance information, one of which is organizational climate.

Based on the explanation above, the hypothesis can be formulated as the followings:

- H6_a : Organizational behavior has positive correlation with the development of performance measurement system.
- H6_b : Organizational behavior has positive correlation with the accountability of performance.
- H6_c : Organizational behavior has positive correlation with the use of performance information.

Resource

Poister (2003) said, one of strategies to succeed in designing and implementing the performance measurement system is the necessity of resource. Artley (2001) showed one of many factors that can hinder the performance accountability of an organization, is the lack of resource. An adequate allocation of resource for the organization staff or work team is very important to obtain optimal performance. The Urban Institute (2002) identified some influential factors that affect the use of performance information are, among others, the funding and staff.

If there are resources, staff, and fund that is especially allocated to develop, evaluate, and evaluate performance, this necessitates the adoption of performance measurement. Capable staff and the provision of financial resource are very important in developing and controlling the performance measurement system (Wang, 2002).

Based on the explanation above, the hypothesis can be formulated as follows:

- H7_a : Resource has positive correlation with the development of performance measurement system.
- H7_b : Resource has positive correlation with the development of performance accountability.
- H7_c : Resource has positive correlation with the use of performance information.

The Development of Performance Measurement System, Performance Accountability, and The Use of Performance Information

Various literatures about the performance measurement mentioned that the provision of the result-oriented performance information reports will enhance the accountability of performance to foster the decision-making in an organization (Artley, 2001; The Urban Institute, 2002). This condition shows the presence of direct influence among the development of

performance measurement system with performance accountability and the use of performance information.

On the other hand, Kloot (1999) said that one of the factors that influences the enhancement of the use of performance information is performance information which results from the implementation of performance measurement system that is used to promote the performance accountability of an organization. The enhancement of performance accountability will provoke the management and staff to use the performance information in making decision. This way, there is an indirect influence between the developments of performance measurement system towards the use of performance information through the performance accountability.

Based on the explanation above, the hypothesis can be formulated as the followings:

- H8_a : The development of performance measurement system has direct, positive influence towards the performance accountability.
- H8_b : The development of performance measurement system has a direct, positive influence towards the use of performance information.
- H8_c : The development of performance measurement system has an indirect, positive influence towards the use of performance information through the performance accountability.

RESEARCH METHOD

This research was conducted in the Regency of Sumba Timur for some reasons:

First, the previous research about the correlation among factors of implementation with the development of performance measurement system, the performance accountability, and the use of performance information found different outcomes. Cavalluzzo and Ittner's findings (2003), and Nurkhamid's (2007), stated that the limited information system has

correlation with the performance accountability, while Putra (2006) found out that the authority of decision-making has correlation with the performance accountability. But Nurkhamid (2007) found out that the authority of decision-making does not have correlation with the performance accountability; while Cavalluzzo and Ittner (2003), and Putra (2006) found out that the difficulties in determining the performance metrics and the authority of decision-making has correlation with the use of performance information. However Nurkhamid (2007) found out that the difficulties in determining the performance metrics and the authority of decision-making do not have correlation with the use of performance information. This motivates researcher to carry out another experiment in Sumba Timur Regency, whose condition is relatively different from that in the province of Yogyakarta and USA.

Second, based on the Regency of Sumba Timur's LAKIP (The Accountability of Government Institution Performance Report) review, it is found that there are practically some constraints related to the performance metrics, such as:

(1) The performance indicator which is developed to the extent of input, output and outcome, while in terms of efficiency, effectiveness, the quality of service, productivity, punctuality, and public satisfaction, it is not used maximally; (2) the performance indicators (input, output, outcome) settled are not specific and the impact is not determined; (3) the outcome obtained is not maximally described without using a valid metrics; (4) the performance indicators settled, are generally not employed maximally as the measurement of achievement for the organization performance, as it is oriented at the implementation of the program/activity and not yet oriented at the result achievement and the benefits of its programs/activities, mentioned.

Besides, researches that reveal the condition of the implementation of performance

measurement system are rarely conducted by the Government of Sumba Timur Regency. The writer obtained information on such condition from the Head of Research and Development-Bappeda of Sumba Timur Regency.

The research design employed is a survey which is done by distributing questionnaire to the officials of echelon II, III, and IV in every institution/board/office which serves as a Regional Work Unit (SKPD) in the government of Sumba Timur Regency. The number of questionnaire distributed was 509 questionnaires. Samples were identified with purposive sampling, which is choosing sample based on certain criteria. The chosen samples were respondents of echelon officials II, III, and IV as they knew the performance measurement of each institution (Putra, 2006).

Variables employed in this research are: (1) the development of performance measurement system, (2) the performance accountability, (3) the use of performance information, (4) the limited information system, (5) the difficulty in determining the performance metrics, (6) the commitment of management, (7) the authority of decision-making, (8) trainings, (9) the organizational behavior, and (10) resources. All pieces of questions were adopted from Cavalluzzo and Ittner (2003), Hatry (1999) in Putra (2006), and Julnes and Holzer (2001) on *likert's* scale using four points: ranging from 'absolutely agree' to 'absolutely disagree' except for training (on *likert* scale, four points from 'very often' to 'never'), and resource (on *likert* scale, four points from 'high' to 'absent').

To obtain a qualified data, it is necessary to carry out research instrument test that covers a validity test and reliability test. The instrument validity test was carried out to correlate questionnaire item score with the total score for each construction using *Pearson's* correlation. If correlation coefficient (r) of each question item has positive value and r is bigger than 0.3, the question item will be regarded valid (Sugiyono, 2009), while the reli-

ability test was conducted with Cronbach's Alpha Test with determinant bigger than 0.60 in line with stipulation of Nunnally (1967) in Putra (2006). Before the hypothesis test was carried out, a classical assumption test that covers normality test (*kologorov-smirnov*), heteroskedasticity test (*glejser* test), multicollinearity test (VIF value and *tolerance* test), and linearity test (*langrange multiplier* test). To experiment the implementation factor with the development of performance measurement system, the performance accountability, and the use of performance information, the researcher used regression equation number 1, 2, and 3. While to experiment the influence of the development of performance measurement system toward the performance accountability, and the use of performance information, the researcher used line analysis with regression equation number 4 and 5, as follows:

$$\text{PSPK} = \alpha_0 + \beta_1\text{KSI} + \beta_2\text{KMU} + \beta_3\text{KM} + \beta_4\text{OPK} + \beta_5\text{P} + \beta_6\text{BO} + \beta_7\text{SD} + e \quad (1)$$

$$\text{AK} = \alpha_0 + \beta_1\text{KSI} + \beta_2\text{KMU} + \beta_3\text{KM} + \beta_4\text{OPK} + \beta_5\text{P} + \beta_6\text{BO} + \beta_7\text{SD} + e \quad (2)$$

$$\text{PIK} = \alpha_0 + \beta_1\text{KSI} + \beta_2\text{KMU} + \beta_3\text{KM} + \beta_4\text{OPK} + \beta_5\text{P} + \beta_6\text{BO} + \beta_7\text{SD} + e \quad (3)$$

$$\text{AK} = \alpha_0 + \beta_1\text{PSPK} + e \quad (4)$$

$$\text{PIK} = \alpha_0 + \beta_1\text{PSPK} + \beta_2\text{AK} + e \quad (5)$$

note:

PSPK = The development of performance measurement system

KSI = The limited information system

KMU = The difficulties in determining the performance metric

KM = The Management Commitment

OPK = The Authority of decision-making

P = Trainings

BO = Organizational Behavior

SD = Resource

AK = The Performance Accountability

PIK = The use of performance information

e = Error

α_0 = Constant

β_{1-7} = Slope

RESULTS

The respondent's characteristic

Respondent in this research can be categorized into several characteristics based on the job positions, the length of service of certain position, and the involvement in developing SAKIP (The System of Performance Accountability for the Government Institution) or the arrangement of LAKIP (The Report of Performance Accountability for the Government Institution). The respondents of this research consist of echelon II officials: 15 people (5%), echelon III officials: 73 people (27%) and echelon IV officials: 180 people (68%). The majority of these research respondents have served for quite a long time on certain position (> 1-5 year) as many as 159 people (60 percent). In term of their involvement of SAKIP or the arrangement of LAKIP, 56 percent of the respondents have ever been involved in the development of SAKIP or the arrangement of LAKIP, and 44 percent of them have never been involved in the development of SAKIP or the arrangement of LAKIP.

Validity and Reliability Test

Based on the validity test result through the analysis of correlation between the question item score and the total score for each variable, it is found that all r value for each question item mentioned has positive value and bigger than 0.3 so all the question items are valid. The reliability test showed that all the research variables employed in this research are reliable because the coefficient value of cronbach's alpha (rule of thumb) is bigger than 0.60.

Classical Assumption Test

Before the hypothesis test was carried out, classical assumption test had been done, including normality test (Kolmogorov-Smirnov test), heteroskedasticity test (Glejser test), and multicollinearity test (VIF value and tolerance), as well as linearity test (Langrange multiplier test). The result of those tests showed that all research variables' residue value of the five regressions equation were distributed normally, no heteroskedasticity was found, no multicollinearity signs were found among independent variables, and all the linear equation model used in this research was accurate.

Hypothesis Experiment

The result of hypothesis experiment can be seen in Table 1.

Discussion on the Results

The negative correlation among the limited information with the development of performance measurement system, the performance accountability, and the use of information is insignificant. It shows that echelon officials of Sumba Timur Regency do not put the limited information system into consideration, when they developed the performance measurement system as much to the level of the use of the results of implementing the performance measurement system. It is used to bear responsibility of the performance achieved and the use of performance information for the decision-making. According to Nurkhamid (2007), this is also contributable to how big influence some determinants have or regulation that obliges every Indonesian government institution to arrange Renstra and LAKIP (The accountability of Government Institution Performance Report). This condition causes the arrangement of Renstra and LAKIP not supported by qualified data. This research result is consistent with the

research done by Cavalluzzo and Ittner (2003), Nurkhamid (2007), and Putra (2006) that found out the fact that the limited information system does not have correlation with the development of performance measurement system. It is consistent with the research of Putra (2006) that found out that the limited information system does not have correlation with the performance accountability.

This research reveals that difficulties in determining the performance measurement do not have a significant negative correlation with the development of performance measurement system and the performance accountability. It indicates that the government officials of Sumba Timur Regency do not take the difficulties in determining the performance metrics when developing performance measurement system as much to the level of the use of the result of implementing performance measurement system that is used to bear responsibility of the performance achieved. It can be explained by the finding of Mahmudi (2003) that in loading the performance indicator, emotion (common sense) was involved, and the settlement of performance indicator appeared poorly-prepared and concentrated on the metrics that are easily measured.

Nevertheless, when the the performance measurement mentioned is required to be used as the base of decision-making, they just realized that the ability of determining the accurate performance metrics to obtain a reliable, valid information is of much necessity.

This research is consistent with the one done by Cavalluzzo and Ittner (2003), Nurkhamid (2007), and Putra (2006), revealing that the difficulty in determining the performance metrics does not have correlation with the performance accountability. It is consistent with the research done by Cavalluzzo and Ittner (2003), and Putra (2006) which found out that the difficulty in determining the performance measurement has correlation with the use of performance information.

Table 1. Result of Hypothesis Experiment

	Hypothesis	Proved/ Not Proved
H1a:	The limited information has negative correlation with the development of performance measurement system.	Not proved
H1b:	The limited information system has negative correlation with the performance accountability.	Not proved
H1c:	The limited information system has negative correlation with the use of performance information.	Not proved
H2a:	Difficulty in determining the performance metrics has negative correlation with the development of performance measurement system.	Not proved
H2b:	Difficulty in determining the performance metrics has positive correlation with the performance accountability.	Not proved
H2c:	Kesulitan menentukan ukuran kinerja berhubungan negatif dengan penggunaan informasi kinerja	Proved
H3a:	The Management Commitment has positive correlation with the development of performance measurement system.	Not proved
H3b:	The Management Commitment has positive correlation with the performance accountability.	Proved
H3c:	The Management Commitment has positive correlation with the use of performance information.	Not proved
H4a:	The Authority of Decision-making has positive correlation with the development of performance measurement system.	Not proved
H4b:	The Authority of Decision-making has positive correlation with the performance accountability.	Proved
H4c:	The Authority of Decision-making has positive correlation with the use of performance information.	Proved
H5a:	Training has positive with the development of performance measurement system.	Not proved
H5b:	Pelatihan berhubungan positif dengan akuntabilitas kinerja	Not proved
H5c:	Training has positive correlation with the use of performance information	Not proved
H6a:	Organizational Behavior has positive correlation with the development of performance measurement system.	Proved
H6b:	Organizational Behavior has positive correlation with the performance accountability.	Proved
H6c:	Organizational Behavior has positive correlation with the use of performance information.	Proved
H7a:	Resource has positive correlation with the development of performance measurement	Proved
H7b:	Resource has positive correlation with the performance accountability.	Proved
H7c:	Resource has positive correlation with the use of performance information.	Proved
H8a:	The Development of Performance Measurement System has direct influence positivey towards the performance accountability.	Proved
H8b:	The Development of Performance Measurement System has direct influence positivey on the Use of Performance Information.	Proved
H8c:	The Development of Performance Measurement System has an indirect influence positivey towards the Use of Performance Informance through the Performance Accountability.	Proved

There is no proof of positive correlation among the management commitment with the development of performance measurement system and the use of performance information. It means that the institution leaders are not able to create conducive management commitment, to create changes. They are unable to influence the officials of Samba Timur as the developer and the user of the system, they are unable to promote its official's appreciation in giving potential contribution towards the performance measurement system as well as to motivate its officials to use performance information for the decision-making.

The significance of correlation among the management commitment and the performance accountability can influence its staff so much that they will feel responsible of the result achieved. This research result is consistent with the research done by Cavalluzzo and Ittner (2003), Nurkhamid (2007), and Putra (2006) which found out that the management commitment has correlation with the performance accountability.

The insignificant correlation among the authority of decision-making with the development of performance measurement system indicates that the authority of decision-making which, so far, has been owned by the officials of Sumba Timur Regency is not able to motivate the government officials to use it in order to support the performance measurement system. Its inability is probably due to the low authority of decision-making that is given to the Regency officials.

This condition probably takes place because the given authority of decision-making is not yet supported by reward given proportionally to the its officials with good achievement, especially one that is related to the implementation of performance measurement system. The authority of decision-making is thought to be more important when they bear responsibility of the performance achieved and when they use the performance information in making decisions for the organization. This

research result is consistent to the one conducted by Cavalluzzo and Ittner (2003), and Putra (2006) which found out that the authority of decision-making has correlation with the use of performance information and the performance accountability.

The correlation among trainings and the development of performance measurement system, and the use of performance information is indicated not to have positive correlation. It explains that the government officials of Sumba Timur Regency don't take too much the lack of comprehension and technical capability or considering training element when they develop the performance measurement system, the responsibility of performance achieved, and the use of performance information for the decision-making, which is finally going to promote the organization performance. It is proved by the low participation of Sumba Timur government officials in some training.

This research result is contradictory to the one done by Cavalluzzo and Ittner (2003), Nurkhamid (2007), and Putra (2006) which revealed that training has correlation with the development of performance measurement system, the performance accountability and the use of performance information. Nevertheless, it is consistent with the finding of Wang (2002) stating that training program for the performance measurement does not significantly affect the result of the performance measurement.

Organizational behavior is highly required in the development of performance measurement system, the responsibility to achieving the result of policy/program/activity that is run by the organization, and the use of performance information in the decision-making related to the organization. The result of this research is consistent with the research conducted by Nurkhamid (2007) which found out that organizational behavior gives influence towards the development of performance measurement system, the performance ac-

countability, and the use of performance information.

This research proves that resource has positive correlation with the development of performance measurement system, the performance accountability, and the use of performance information. Poister (2003) stated that one of the strategies to succeed in designing and implementing the performance measurement system is the necessity of resource. Artley (2001) indicated one of many factors that can hinder the performance accountability at an organization is the lack of resource. Its adequate allocation to the organization staff or work team is very important to obtain an optimum performance. The Urban Institute (2002) identified several factors that can affect the use of performance information are, among others, fund and staff.

The development of performance measurement system has positive and direct influence on the performance accountability and the use of performance information. This finding strengthens Mahmudi's statement (2010) that one of the performance indicator's roles is enhancing the management accountability by imposing responsibility explicitly and proving the success or the failure. Artley and Stroh (2001) stated that the performance metrics will give the required information to make decision related to the policy/program/activity. This condition showed the presence of direct influence among the development of performance measurement system towards the performance accountability and the use of performance information. Other than that, it is proved that the development of performance information system has an indirect influence towards the use of performance information through the performance accountability. This finding strengthens Kloot's opinion (1999) that one of many factors that affects the enhancement of the use of performance information is performance information that results from the implementation of performance measurement system used to promote the per-

formance accountability of an organization. This research result is consistent with the research of Cacalluzzo and Ittner (2003), Nurkhamid (2007), and Putra (2006) which found out the the development of performance measurement system directly influences the performance accountability and the use of performance information, and indirectly influences the use of performance information through the performance accountability.

CONCLUSIONS

This research shows that the limited information system, the difficulty in determining the performance metrics, the management commitment, the authority of decision-making, and training does not have correlation with the development of performance measurement system. On the other hand, organizational behavior and resource has correlation with the development of performance measurement system. The limited information system, the difficulty in determining the performance metrics, the authority of decision-making, organizational behavior and resource have correlation with the use of performance information. Nevertheless, the limited information system, management commitment, and training do not have correlation with performance information. Besides, the development of performance measurement system has an indirect influence on the performance accountability and the use of performance information and has an indirect influence on the use of the performance information through the performance accountability.

Whereas some matters are considered as the shortcomings of this research, namely: (1) this research respondents are those in executive positions and not those involved in legislative, and (2) this research was only conducted in the Regency of Sumba Timur, as so it is not adequate to generalize practices of performance measurement in Indonesia.

This research can become an input for the government institution in developing perform-

ance measurement system. In order to enhance the performance of regent government of Sumba Timur, it is necessary that the organization leader to: a) give its strong support and commitment towards the implementation of performance measurement system, b) give the larger authority of decision-making to its staff/officials, c) give rewards proportionally to its officials who are proved to enhance organization performance, d) let the organization personnel take part in some trainings, which are in favor of performance measurement system, e) develop and familiarize them with organizational behavior to achieve a strong, adaptive, and dynamic performance, f) promote the human resource capacity, quantitatively and qualitatively, either in term of comprehension or technical capability which has something to do with the implementation of performance measurement system, as well as g) promote non-human resource, such as fund, time provision for the activity of performance measurement, and technology required.

For further research, it is necessary to consider and add several factors that affect the implementation of performance measurement system, to do interviews to promote comprehensions on the answers given by the respondents, so it will obtain a more complete data. Besides, the legislative parties are necessarily to be involved to evaluate their attitude and commitment to the development of performance measurement system. They are also expected to widen their research object in another government institution of other regency or in the central government in order to enhance their capability to generalize the research result, and to evaluate the interactions of the independent variables in affecting the dependent variables as done by Cavalluzzo and Ittner (2003).

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