

# The Effect of Internal Control on Performance Accountability in the Main Secretariat of Indonesian Institute of Science

R. Luki Karunia\*

Business Administration Department  
 Politeknik STIA LAN Jakarta  
 Jakarta, Indonesia  
 \*karunialuki@yahoo.com

Diffi Fortuna Heryani

Sekertariat Utama  
 Lembaga Ilmu Pengetahuan Indonesia  
 Jakarta Indonesia  
 atharizzki@gmail.com

**Abstract**—Planning and budgeting reform began in 2005 with Law No. 17 of 2003 concerning State Finance, having implications for the paradigm in the management of state finances, namely that all the state finance must be accompanied by the achievement of output. The purpose of this research was to analyze the influence of internal control on performance accountability in the Main Secretariat LIPI consisting of the control environment, risk assessment and monitoring of the accountability of the performance. The population in this research were all employers at Settama LIPI. Sampling using the Proportionate Stratified Random Sampling technique obtained 132 respondents. The research using Structural Equation Model (SEM) analysis. Based on the results of the research that has been done, the results show that all variables (control environment, risk assessment and monitoring) influence and positively relate to performance accountability. Besides being able to see the influence between variables, from the SEM results it can also see the influence between indicators. The research suggests several things, such as: 1) the application of a policy, should be through a process by involving staff representatives, 2) managing risk while planning, and during and after policy changes, to see whether the policy has a negative or positive impact on performance accountability, and 3) carry out continuous monitoring of performance.

**Keywords**—*internal control, control environment, risk assessment, monitoring, performance accountability*

## I. INTRODUCTION

### A. Background Research

Performance measurement serves to assess the success or failure of an organization, program or activity. Performance measurement is needed to assess the level of deviation between actual performance and expected performance. By knowing these deviations, efforts can be made to improve and improve performance.

The reason for the importance of measuring the performance of the public sector is related to its responsibility

in meeting public accountability and expectations. Public sector organizations are responsible for the use of funds and resources in terms of compliance with procedures, efficiency and achievement of objectives.

Performance measurement in the public sector has several objectives, including:

- Create public accountability. By measuring performance, it will be known whether resources are used economically, efficiently and effectively in accordance with regulations, and can achieve the goals set.
- Knowing the level of achievement of organizational goals. Performance measurement is very important to see whether an organization runs according to plan or deviates from the goals set.
- Improve the performance of subsequent periods. Performance measurement will greatly assist the achievement of organizational goals in the long term and shape efforts to achieve a better work culture in the future.

One guideline for measuring government agencies is the Regulation of the Minister of PAN RB number 25 of 2012, where there are 5 components that must be assessed in LAKIP, namely:

- Performance planning, consisting of strategic plans, annual performance plans, and annual performance determination with a weight of 35.
- Performance measurement, which includes fulfillment of measurement, measurement quality, and implementation of measurements with a weight of 20.
- Performance reporting, consisting of fulfilling reports, presenting performance information, and utilizing performance information, is given a weight of 15.

- Performance evaluation which consists of fulfilling evaluation, evaluating quality, and utilizing evaluation results, is given a weight of 10.
- And performance achievement, weighing 20, consists of reported performance (outputs and outcomes), current year's performance and other performance.

Based on the evaluation criteria determined by the Ministry of Education and Culture, LIPI succeeded in getting a performance evaluation like the table 1 below.

TABLE I. THE ASSESSMENT OF LIPI PERFORMANCE

Assessed LKJ Components	2014		2015		2016		2017	
	weight	value	weight	value	weight	value	weight	value
Performance Planning	35	26,04	30	20,51	30	20,95	30	21,89
Performance measurement	20	14,80	25	18,30	25	18,18	25	18,26
Performance report	15	11,14	15	11,14	15	11,22	15	11,22
Internal evaluation	10	6,48	10	6,46	10	6,82	10	6,92
Performance achievement	20	12,85	20	13,47	20	13,72	20	14,04
Scores	100	71,31 (B)	100	70,15 (BB)	100	70,89 (BB)	100	72,33 (BB)

Sources: Planning and Financing Bureau, LIPI

Based on Table 1 can be seen, it can be seen that LIPI has decreased in value from 2014 to 2015. After the change in the value determination, it can be seen that LIPI continues to increase. Even though LIPI experienced an increase in LKJ assessment, it only rose by a few points.

Based on the background described above, so the research question in this study is how influence the internal control system of the company's performance at LIPI ? Than the purpose of this study is examine and analyze impact the internal control system of the company's performance at LIPI.

### B. Operational Variable

Performance is the output produced by the functions or indicators of an occupation or a profession within a certain time in the organization. Meanwhile, according to Mulyadi [1], Performance is the success of personnel, teams, or organizational units in realizing strategic goals that have been predetermined by the expected behavior.

The research variables contained in the study are:

1) *Internal control variable (Variable X)*: The internal control variable has 5 (five) elements, but in this study, the writer only took 3 (three) elements that will be used as indicators in this study, namely:

- Control environment (X1), which is a set of standards, processes, and structures that provide the basis for carrying out internal control throughout the organization.
- Risk Assessment (X2), i.e. each entity in facing various risks from external and internal parties. Risk is defined as the likelihood that an event will occur and affects the achievement of objectives.
- Monitoring (Monitoring Activities) (X3), which is a process to assess the quality of internal control performance from time to time. This involves assessing

the design and control of operations in a timely manner and taking the necessary corrective actions.

2) *Performance accountability variables (Y)*: Performance Accountability Assessment, is a picture of the level of achievement of the implementation of an activity / program made in a policy in realizing the goals, objectives, mission and vision of the organization contained in the strategy of an organization. To measure this performance, there are several approaches that will be used, namely by looking at the stages or cycles of this performance measurement. See table 2 below.

TABLE II. OPERATIONAL VARIABLE

Variabel	Indicator [2-5]
<i>Internal Control</i>	
<i>Control Environment (X1)</i>	<ol style="list-style-type: none"> <li>1. Enforcement of integrity and ethics;</li> <li>2. Commitment of competency;</li> <li>3. Leadership;</li> <li>4. Developing organizational structure as needed;</li> <li>5. Delegation of authority and responsibility;</li> <li>6. Policy implementation of human resources;</li> <li>7. Effectively the role of internal control department</li> </ol>
<i>Risk Assessment (X2)</i>	<ol style="list-style-type: none"> <li>1. Establishment the goal of institution</li> <li>2. Establishment the goal of activities</li> <li>3. Risk identification</li> <li>4. Risk Analysis</li> <li>5. Risk Management</li> </ol>
<i>Monitoring Activities (X3)</i>	<ol style="list-style-type: none"> <li>1. Monitoring Sustainability</li> <li>2. Evaluation</li> <li>3. Audit completion</li> </ol>
<i>Performance accountability (Y)</i>	<ol style="list-style-type: none"> <li>1. Performance planning</li> <li>2. Performance implementation</li> <li>3. Performance review and performance evaluation</li> </ol>

II. ANALYSIS

A. Confirmatory Factor Analysis

The first stage of the analysis carried out in the confirmatory factor analysis is to test the feasibility of the confirmatory model of exogenous variables. The results of the confirmatory factor analysis of exogenous variables can be presented as figure 1 follows.

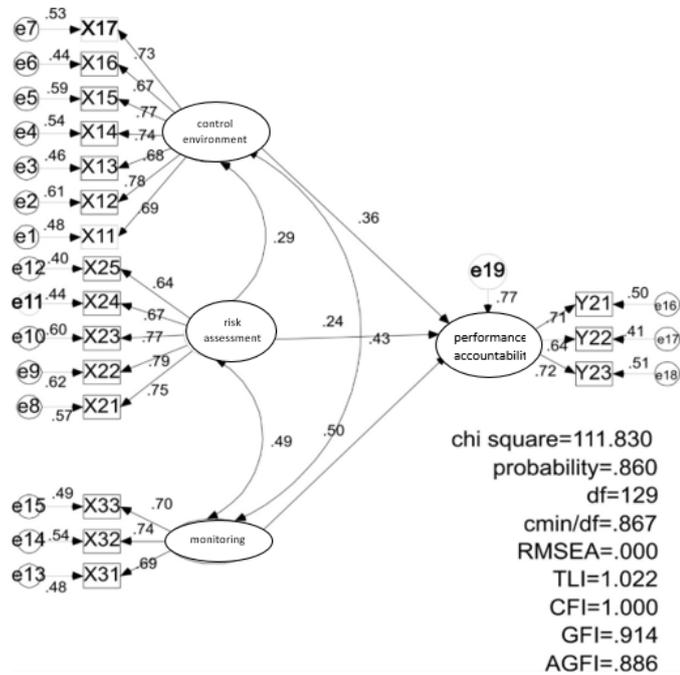


Fig. 1. The results of the confirmatory factor analysis of exogenous variables.

TABLE III. CONFIRMATORY FACTOR ANALYSIS – GOODNESS OF FIT TEST

Goodness-Of-Fit Index	Cut-Of Value	Model Result	Conclusion
Chi-Square (df=129)	(<156,60)	111.83	Ok
Probability	≥ 0,05	0.860	Ok
RMSEA	≤ 0,08	0.000	Ok
GFI	≥ 0,90	0.914	Ok
AGFI	≥ 0,90	0.886	Ok
CMIN/DF	≤ 2,00	0.867	Ok
TLI	≥ 0,95	1.022	Ok
CFI	≥ 0,95	1.000	Ok

Sources: Primary data are processed

Based on the results of the feasibility test of the confirmatory model of exogenous variables (table 3), it is known that the exogenous model can meet the established goodness of fit criteria as indicated by the goodness of fit test value with  $\chi^2$  of 111.83 with a probability of 0.860 and the feasibility measures of the other models are in the category

both of which indicate no difference between the predicted model and observational data. So it can be concluded that the suitability of the predicted model with observational values has met the requirements.

B. Standardized Regression Weight

See table 4 below.

TABLE IV. STANDARDIZED REGRESSION WEIGHT

		Estimate
X11	<--- Control environment	.692
X12	<--- Control environment	.781
X13	<--- Control environment	.679
X14	<--- Control environment	.738
X15	<--- Control environment	.767
X16	<--- Control environment	.666
X17	<--- Control environment	.725
X21	<--- Risk assessment	.752
X22	<--- Risk assessment	.789
X23	<--- Risk assessment	.774
X24	<--- Risk assessment	.665
X25	<--- Risk assessment	.636
X31	<--- Monitoring	.690
X32	<--- Monitoring	.736
X33	<--- Monitoring	.703
Y21	<--- Perform Accountable	.706
Y22	<--- Perform Accountable	.641
Y23	<--- Perform Accountable	.718

Sources: Primary data are processed

Based on the results of confirmatory analysis of exogenous variables, it shows that the indicators forming each variable show a loading factor value above 0.5, so it can be concluded that the indicators are declared valid and can be used as forming exogenous variables.

C. Full Model Analysis

See table 5 and figure 2 below.

TABLE V. CONFIRMATORY FACTOR ANALYSIS – GOODNESS OF FIT TEST

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Sources: Primary data are processed

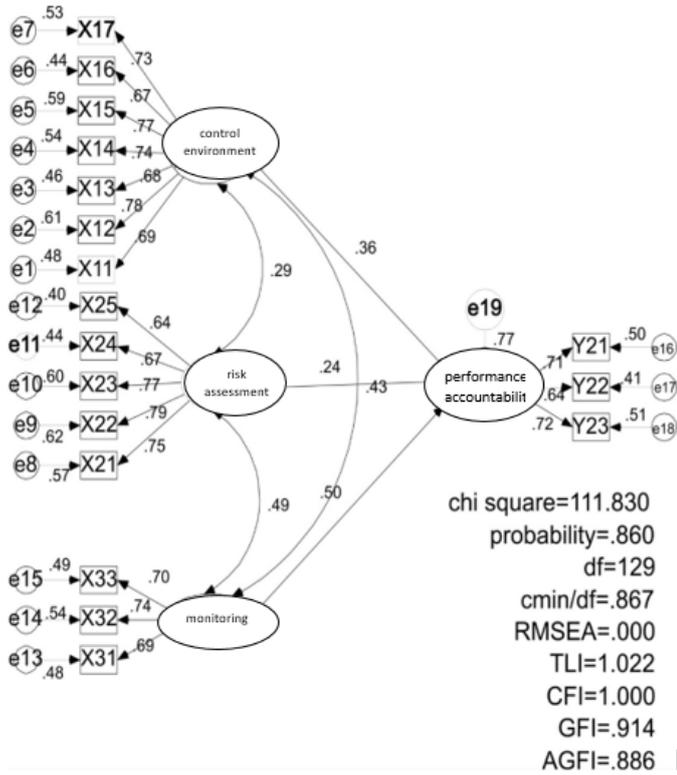


Fig. 2. The results of full model analysis.

The results in the table below show that this model fits according to the data or fits the available data. Chi-square probability index, GFI, AGFI, CFI, TLI, CMINDF and RMSEA are in the expected range of values, which are included in either category. On this basis, it is concluded that this research model meets the size of the model suitability (goodness of fit) and can be continued in further analysis, namely testing the hypothesis.

D. Hypothesis Test

This section will present the results of testing the research hypotheses that have been proposed in the previous chapter. Hypothesis testing proposed in this study is based on the Critical Ratio (CR) value of the causal relationship between SEM analysis results. See table 6 below.

TABLE VI. FACTOR ANALYSIS SIGNIFICANCE – PERFORMANCE ACCOUNTABILITY

			Estimate	S.E.	C.R.	P
Y	<---	Control Environment	.348	.097	3.578	***
Y	<---	Risk Assessment	.188	.079	2.363	.018
Y	<---	Monitoring	.506	.131	3.858	***

E. Influence Between Variabels

The effect of each variable can be seen from the estimation results of the parameters of the direct effect between exogenous variables and endogenous variables. The estimated value of the

path coefficient is known in Standardized Regression Weights. While the significance of the effect is known from the value of C.R or the value of probability (p). The results of the analysis of direct effects as a whole are presented in Table 7 following.

TABLE VII. ESTIMATION PARAMETER INFLUENCE BETWEEN VARIABEL WITH SEM

No	Variable X	Variable Y	Estimation	C.R	P
1	Control Env	Performance	0.360	3.578	0.000
2	Risk Assesment	Performance	0.240	2.363	0.018
3	Monitoring	Performance	0.504	3.858	0.000

Sources: Primary data are processed

Based on the results of testing of the overall model, then the mathematical model equation can be written in the form of Structural Equation Model (SEM) as follows:

In accordance with the drawings the following summary of the path coefficients between variables. See table 8 below:

TABLE VIII. PATH COEFFICIENT

Variable	Coefficient Line
Control Environment → Corporate Performance	0.360
Risk Assesment → Corporate Performance	0.240
Monitoring → Corporate Performance	0.504

III. CONCLUSION AND RECOMMENDATION

Based on the data analysis that has been done, this research yields the following conclusions: (1) It can be seen from the results of SEM analysis that it can be seen that the control environment significantly influences performance accountability. This is evidenced from the value of the critical ratio (CR) of 3.578 with a probability of 0,000. So it can be concluded that the environment influences performance accountability. (2) Based on the research results obtained by researchers it can be seen from the results of SEM analysis it can be seen that risk assessment has a significant effect on performance accountability. This is evidenced from the value of the critical ratio (CR) of 2.363 with a probability of 0.018. So, it can be concluded that risk assessment has a significant effect on performance accountability. (3) Based on the results of research that has been conducted by researchers, it can be seen from the results of SEM analysis that monitoring can have a significant effect on performance accountability. This is evidenced from the value of the critical ratio (CR) of 3.858 with a probability of 0,000. So, it can be concluded that monitoring has a significant effect on performance accountability. (4) Based on research that has been done, it can also be concluded that the results of previous studies do not have the same results. This is due to differences in the X variable used.

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