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

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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.

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 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 |

| TABLE II. OPERATIONAL VARIABLE |
|---------------------------------|
| Variabel | Indicator [2-5] |
| Internal Control | |
| Control Environment (X1) | 1. Enforcement of integrity and ethics; |
| 2. Commitment of competency; |
| 3. Leadership; |
| 4. Developing organizational structure as needed; |
| 5. Delegation of authority and responsibility; |
| 6. Policy implementation of human resources; |
| 7. Effectively the role of internal control department |
| Risk Assessment (X2) | 1. Establishment the goal of institution |
| 2. Establishment the goal of activities |
| 3. Risk identification |
| 4. Risk Analysis |
| 5. Risk Management |
| Monitoring Activities (X3) | 1. Monitoring Sustainability |
| 2. Evaluation |
| 3. Audit completion |
| Performance accountability (Y) | 1. Performance planning |
| 2. Performance implementation |
| 3. Performance review and performance evaluation |

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 value determination, it can be seen that LIPI continues to decreased in value from 2014 to 2015. After the change in the performance from time to time. This involves assessing the design and control of operations in a timely manner and taking the necessary corrective actions.
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.](image)

**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 χ2 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      | .692    |
| X12      | .781    |
| X13      | .679    |
| X14      | .738    |
| X15      | .767    |
| X16      | .666    |
| X17      | .725    |
| X18      | .752    |
| X19      | .789    |
| X20      | .774    |
| X21      | .665    |
| X22      | .636    |
| X23      | .690    |
| X24      | .736    |
| X25      | .703    |
| X26      | .706    |
| X27      | .641    |
| X28      | .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.

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| CFI                   | ≥ 0,95       | 1.000        | Ok         |

Sources: Primary data are processed
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

| Y ←−−−−−− Control Environment | Estimate | S.E. | C.R. | P  |
|-------------------------------|----------|------|------|----|
| 1                             | .348     | .097 | 3.578 | ***|
| 2                             | .188     | .079 | 2.363 | .018|
| 3                             | .506     | .131 | 3.858 | ***|

E. Influence Between Variables

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 VARIABLE WITH SEM

| No | Variable X   | Variable Y   | Estimation | C.R  | P    |
|----|--------------|--------------|------------|------|------|
| 1  | Control Env | Performance  | 0.360      | 3.578| 0.000|
| 2  | Risk Assess  | 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 Line                      | Coefficient |
|------------------------------------|-------------|
| Control Environment → Corporate Performance | 0.360       |
| Risk Assessment → 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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