THE EFFECT OF IMPLEMENTATION OF PERFORMANCE BUDGET AND INTERNAL CONTROL ON PERFORMANCE ACCOUNTABILITY WITH INFORMATION SYSTEM AS A MODERATING VARIABLE IN VERTICAL HOSPITAL

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Abstract

The purpose of this study was to analyze the effect of performance budget implementation, internal control on the performance accountability of government agencies and information systems as moderating variables in the Vertical Hospital of the Directorate General of Health Services. The type of research used is causal research with a quantitative approach. The population in this study were all Vertical Hospitals of the Ministry of Health of Indonesia as many as 33 hospitals and Inspectorate General of the Ministry of Health. The research method uses census method, that is, all populations in this study are used as research samples. Data analysis method uses multiple linear regression l mode and interaction test for moderating variables. The results of this study indicate that simultaneously performance budget implementation and internal control have a significant effect on the performance accountability of agencies of the Vertical Hospital of the Directorate General of Health Services. Partially only performance budget implementation has a significant positive effect on the performance accountability of government agencies, while internal control variables do not affect the performance accountability of government agencies. Information systems as moderating variables cannot strengthen the relationship between performance budget implementation and internal control with the performance accountability of government agencies Vertical Hospital Directorate General of Health Services.

Key words: Performance Budget Implementation, Internal Control, Information Systems, Performance Accountability of Government Agencies.

1. INTRODUCTION

The Directorate General of Health Services is one of the Directorates under the auspices of the Ministry of Health which has the task of organizing the formulation and implementation of policies in the field of health services in accordance with the provisions of the legislation. In accordance with the mandate of laws No. 32-34 of 2004 and Permenpan-RB No.53 of 2014 and the Presidential Regulation No. 29 of 2014 requires the Ministry of Health and the units below to account for the successes and failures of its performance. Most of the Vertical UPT work units of the Directorate General of Health Services are hospitals both general hospitals and special hospitals. The Hospital is obliged to evaluate and report the results of its performance every year. Performance accountability will be evaluated and assessed by the Inspectorate General of the Ministry of Health. The results of the evaluation are set forth in the SAKIP Result Score Note. The Directorate General of Health Services Vertical Hospital began to be assessed for the accountability of the performance of its agency by the Auditor Inspectorate General since 2012. The assessment results showed a very good
performance where almost all hospitals received AA (satisfactory) value categories. As for those assessed by the Inspectorate General in terms of evaluating the accountability of hospital performance are: (1). Performance Planning (30%), (2). Performance Achievement (20%), (3). Performance Measurement (25%), (4). Performance Reporting (15%), (5). Performance Evaluation (10%).

From the assessment factors it can be concluded that planning holds the greatest value in the assessment of performance accountability. As a Work Unit that has implemented a Public Service Agency (PSA) management system, the hospital is obliged to prepare its plans as outlined in the 5-year Business Strategic Plan document. This Business Strategic Plan is lowered every year in the Business Plan and Budget (BPB). BPB is an annual business planning and budgeting document containing a Public Service Agency Program, Activities, Performance and Budget Targets. In addition to referring to the Business Strategic Plan (BPB), the Hospital also compiled an BPB with reference to the Budget Ceiling set by the Ministry of Health. The planning and budgeting system in Indonesia has undergone several changes in its application. From starting to use traditional approaches to becoming performance-based budgeting. Performance-based budgeting is an approach in the budgeting system that takes into account the relationship between funding and expected performance, as well as paying attention to efficiency in achieving these performance. In the implementation of budgeting, technical service units under the Directorate General of Health Services are reviewed by the Inspectorate General, the Ministry of Health's Planning and Budget Bureau to see whether they are in accordance with the performance-based budgeting rules stipulated in the Finance Minister's Regulation concerning Guidelines for Preparation and Review of Work Plans and Budgets State Ministry / Institution and Ratification of Budget Implementation Registration List.

External organizational environment changes, especially in government organizations are very influential in the implementation of operational activities and in achieving the goals and objectives that have been set. This change leads to the consequence of the need for a strong internal control system to ensure the achievement of processes and results of activities as desired. The type of control that is usually found in government agencies is direct supervision. In organizational activity units placed supervisors who supervise to ensure that management policies that are determined centrally are implemented strictly in the activity unit. A reliable Internal Control System must exist in every organization and occupy a very important position. The success of the implementation of activities depends very much on how the understanding of each element of internal control, government agencies in the implementation of activities must be guided by the Government Internal Control System as mandated in Law of Government (PP) No. 60 of 2008, that in order to achieve effective, efficient, transparent and accountable financial management institutions are required to exercise control over the administration of government activities. Tandri et al (2015) said that a hospital is a unique organization, so the internal control system must be able to accommodate this uniqueness because the hospital is an organization with its products are services related to human health, so there must be serious moral responsibility from the organization to provide maximum service to patients.

The implementation of service and administration activities at the Vertical Hospital of the Directorate General of Health Services is currently supported by the Information System both independently and by third parties. The Hospital Management Information System is a computerized system that processes and integrates all health service business process flows in the form of a network of coordination, reporting and administrative procedures to obtain information quickly, accurately and accurately.
Based on Law of Health Ministry (PERMENKES) No. 1171 of 2011, Article 1 (one) paragraph 1 (one) concerning Hospital Information Systems, namely "Every hospital is obliged to carry out a Hospital Information System.

Based on the above background, the purpose of this study is to test and analyze performance-based budget implementation and internal control affect performance accountability and to test and analyze hospital information systems in moderating the relationship between performance-based budgeting and internal control with performance accountability in Vertical Hospital of Directorate General of Health Services Ministry of Health.

2. LITERATURE REVIEW

According to the Institute of State Administration of the Republic of Indonesia (Pasolong, 2007: 175) states that performance is a description of the level of achievement of the implementation of an activity, program, policy in realizing the goals, objectives, mission and vision of the organization.

Understanding accountability according to Institute of State Administration (2003) is the obligation to provide accountability or to answer and explain the performance and actions of a person / legal entity / collective leadership of an organization to those who have the right or authority to request information or accountability.

Decree of the Head of the Institute of State Administration No 293 / IX / 6/8/2003 concerning Improvement of the Reporting Guidelines for Performance Accountability of Government Agencies explained that the performance accountability of government agencies is the realization of the obligation of a government agency to account for the success and failure of the implementation of the organization's mission in achieving its aims and the purposes that have been determined through a periodic accountability system.

Performance budgeting is a budgeting system that is oriented to the organization's 'output' and is closely related to the organization's vision, mission and strategic plan. Performance budgeting allocates resources to programs not only to organizational units and uses 'output measurement' as an indicator of organizational performance (Bastian, 2006). Book 2 Guidelines on the Implementation of Performance Budgeting (2009) and the Republic of Indonesia's Minister of Finance Regulation Number 94 / PMK 02/2017 explains that the conceptual foundation / principles underlying the implementation of performance budgeting include:

a. Budget allocation is performance oriented (output and outcome oriented)

b. Budget allocation for Programs / Activities is based on the work unit functions attached to the organizational structure (money follow function)

c. There is flexibility in budget management while maintaining the principle of accountability (let the manager manages).

According to Romney and Steinhart (2009: 229): "Internal control is an organizational plan and business method that is used to maintain assets, provide accurate and reliable information to encourage and improve the efficiency of the organization's path, and to encourage conformity with established policies." Based on research by Committee of Sponsoring Organization (COSO), internal control is a system, structure or process implemented by the board of commissioners, management and employees in a company that aims to provide adequate assurance that the objectives of the control are achieved, including the effectiveness and efficiency of operations, the reliability of financial
reporting, and compliance with laws and regulations can be achieved. Hospital Information Systems (HIS) is a process of collecting, processing, and presenting hospital data throughout Indonesia. This Information System covers all general and special Hospitals, both managed publicly and privately as stipulated in the Law of the Republic of Indonesia Number 44 of 2009 concerning Hospitals. In accordance with Article 52 paragraph (1) of Law Number 44 of 2009 concerning Hospitals, each hospital is obliged to record and report on all hospital organizing activities in the form of hospital management information systems. Recording and reporting is carried out in order to improve the effectiveness of hospital supervision and supervision in Indonesia.

<table>
<thead>
<tr>
<th>No.</th>
<th>Name/Research Year</th>
<th>Title</th>
<th>Variable</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Silalahi (2017)</td>
<td>Effect of Budget Target Clarity, Internal Control and Reporting System on Accountability of Government Institution Performance with Organizational Commitment as a moderating variable in Serdang Bedagai Regency Government</td>
<td><strong>Dependent Variables:</strong> Performance Accountability</td>
<td>The results showed that the clarity of budget targets, internal control and reporting systems simultaneously had a positive and significant effect on the performance accountability of government agencies in Serdang Bedagai District. While partially only internal control and reporting systems have a positive and significant effect on the performance accountability of government agencies. Organizational commitment is a moderating variable that is able to moderate the relationship between clarity of budget targets, internal control, and reporting systems with performance accountability of government agencies in Serdang Bedagai Regency.</td>
</tr>
<tr>
<td>2</td>
<td>Manuring (2015)</td>
<td>Effect of Performance-Budgeting Implementation on Accountability of Performance of Government Institutions in Tebing Tinggi City</td>
<td><strong>Dependent Variables:</strong> Performance Accountability</td>
<td>The results of the study showed that the implementation of the budget and performance evaluation proved partially to have a significant effect on the performance accountability of government agencies. While budget planning and reporting / accountability does not prove to have a partial significant effect on the performance accountability of government agencies.</td>
</tr>
<tr>
<td>3</td>
<td>Yuliani, Susanto (2014)</td>
<td>The Influence of the Regional Financial Management Information System and the application of Performance Based Budgeting to Public Accountability in Magelang Regency.</td>
<td><strong>Dependent Variables:</strong> Performance of Local Government and Public Accountability</td>
<td>The results showed that financial management information systems and the implementation of performance budgeting had a positive and significant effect on the performance of local governments. The implementation of performance budgeting and the performance of local governments has a positive and significant effect on public accountability. While the system of regional financial management has no effect on public accountability. Regional financial management systems and the implementation of performance budgeting have no effect on public accountability through the performance of local governments.</td>
</tr>
</tbody>
</table>
The results show that the implementation of performance budgeting does have an effect on the performance accountability of government agencies simultaneously. But only the implementation of the budget and budget reporting affect the performance accountability of government agencies. While organizational commitment cannot moderate the four independent variables.

### CONCEPTUAL FRAMEWORK

![Conceptual Framework](image.png)

Gambar 1. Conceptual Framework

### HYPOTHESIS

The research hypothesis states that the performance budget implementation and internal control partially have significant effect on Performance Accountability and Hospital Information System is able to moderate the good relationship between Performance Budget Implementation with performance accountability and internal control with performance accountability in the Vertical Hospital Directorate General of Health Services Ministry of Health.

### 3. RESEARCH METHOD

The type of research is causal research with a quantitative approach. Causal research is research that wants to see whether a variable that acts as an independent variable influences other variables that are dependent variables (Juliandi et al, 2015).

This research was conducted at the Vertical Technical Implementation Unit (especially the Hospital) of the Directorate General of Health Services of the Ministry of Health of the Republic of Indonesia. Population is an area of generalization which consists of objects / subjects that have certain qualities and characteristics set by researchers to be...
studied and then drawn conclusions (Sugiyono, 2006: 72). The population in this study were all Vertical Hospitals of the Ministry of Health of Indonesia as many as 33 hospitals and Inspectorate General of the Ministry of Health.

The type of data used in this study is qualitative data consisting of primary data. This data collection technique is using a questionnaire. The following is the operational definition of the research variable:

<table>
<thead>
<tr>
<th>No</th>
<th>Variables</th>
<th>Operational Definition</th>
<th>Parameter</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Accountability Performance</td>
<td>The realization of the obligation of a government agency to account for the success and failure of the implementation of the organization's mission in achieving the goals and objectives that have been established through the periodic accountability system.</td>
<td>Respondents’ perceptions of hospital performance accountability, which include: 1. Planning 2. Performance Measurement 3. Performance Reporting 4. Internal Evaluation</td>
<td>Likert</td>
</tr>
<tr>
<td>2</td>
<td>Performance Budget</td>
<td>The budgeting system is oriented towards the 'output' of the organization and is closely related to the vision, mission and strategic plan of the organization.</td>
<td>Respondents’ perceptions of the budget prepared include: 1. Performance-oriented budget allocation (outputs &amp; results) 2. Program-based budget allocation, Hospital vision mission (money follow program) 3. There is flexibility in managing the budget while maintaining the principle of accountability</td>
<td>Likert</td>
</tr>
<tr>
<td>3</td>
<td>Internal Control</td>
<td>Organizational plans and business methods that are used to maintain assets, provide accurate and reliable information to encourage and improve the efficiency of the organization's work, and encourage conformity with the policies that have been set.</td>
<td>Elements of Internal Control 1. Environment 2. Policy 3. Control activities 4. Information and Communication 5. Evaluation &amp; Monitoring</td>
<td>Likert</td>
</tr>
<tr>
<td>4</td>
<td>Hospital Information System</td>
<td>A process of collecting, processing and presenting hospital data using computer and communication technology</td>
<td>Respondents’ perceptions include: 1. Availability of information systems on hospital management and budget 2. Availability of information systems on hospital performance 3. Quality of information provided</td>
<td>Likert</td>
</tr>
</tbody>
</table>
All data obtained by researchers were processed using SPSS software through questionnaires that had been collected. Therefore, before data analysis is carried out it is necessary to test the question instrument through validity, reliability and classical assumption tests. After the questions are declared valid and reliable, further data analysis can be carried out.

Testing the first hypothesis in this study was carried out with a multiple linear regression model which aims to examine the effect of one dependent variable with two or more independent variables. The multiple regression equation of this study is formulated as follows:

\[ Y = a + b_1 X_1 + b_2 X_2 + e. \]

To answer the second hypothesis, the researcher conducted regression testing with moderating variables, namely interaction test. Interaction test or often called Moderated Regression Analysis (MRA) is an application of multiple linear regression wherein the equation contains elements of interaction (multiplication of two or more independent variables). Regression equation for interaction test can be described as follows:

\[ Y = a + b_1 X_1 + b_2 X_2 + b_3 X_1 Z + b_4 X_2 Z + e \]

4. RESULT

1. Descriptive statistics obtained from answers to returned questionnaires regarding research variables are presented in the following Table 3:

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance</td>
<td>64</td>
<td>4</td>
<td>20</td>
<td>17.23</td>
<td>2.883</td>
</tr>
<tr>
<td>Accountability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance</td>
<td>64</td>
<td>6</td>
<td>30</td>
<td>25.55</td>
<td>3.972</td>
</tr>
<tr>
<td>Budget</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Implementation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal Control</td>
<td>64</td>
<td>15</td>
<td>30</td>
<td>24.20</td>
<td>3.400</td>
</tr>
<tr>
<td>Information System</td>
<td>64</td>
<td>5</td>
<td>20</td>
<td>15.02</td>
<td>3.619</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>64</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Based on the results of the validity test, all questions on the variables of performance accountability, application of performance-based budgeting, internal control and information systems get a value greater than \( r_{table} = 0.246 \), concluded all questions are valid.

3. Based on the reliability test, it is known that the Cronbach’s Alpha value of each variable is > 0.70, therefore it can be stated that all of these variables are declared reliable.

4. The results of the classic assumption test are as follows:
   Normality test

In the picture below it can be explained that the histogram data follows the curve form so that the regression model meets the normality assumption, in line with the normal P-
plot graph that shows the plot pattern spreads around the diagonal line and follows the direction of the diagonal line so it can be concluded that the regression model meets the assumptions of normality.

**Multicollinearity Test**

Table 4. Multicollinearity Test

<table>
<thead>
<tr>
<th>Model</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td></td>
</tr>
<tr>
<td>Performance Budget</td>
<td>.807</td>
</tr>
<tr>
<td>Implementation</td>
<td></td>
</tr>
<tr>
<td>Internal Control</td>
<td>.671</td>
</tr>
<tr>
<td>Information System</td>
<td>.614</td>
</tr>
</tbody>
</table>

The table below shows that all independent variables have a VIF value <10 and Tolerance value > 0.10, so it can be concluded that there is no multicollinearity in the regression model so that it can continue testing the data to the next stage.

**Heteroscedasticity Test**

From the Scatterplot graph, this study shows that the points spread randomly and spread both above and below the number 0 on the Y axis. This shows that there is no heteroscedasticity in the regression model, so that the proper regression model is used to predict performance accountability based on the input of independent variables (performance budget implementation and internal control).

5. Result of the Hypothesis Testing

**Coefficient Determination (Adjusted R²)**

Table 5. Uji koefesien determinasi Coefficient Determination Test

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.780</td>
<td>.608</td>
<td>.589</td>
<td>1.84840</td>
</tr>
</tbody>
</table>

Adjusted R Square value = 0.589. shows that performance accountability as the dependent or dependent variable can be explained by independent variables (performance budget implementation and internal control) of 58.9%, while the remaining 41.1% is explained by other variables outside this study.

**Statistical Test F (Test of Simultaneous Significance)**

Table 6. Simultaneous Effect Test with Test F
Significance value $F = 0.000 < \alpha = 0.05$, concluded that independent variables are performance budget implementation and internal control and information systems have a positive effect simultaneously on performance accountability.

**Test of Partial Influence (T Test)**

$$Y = 4.439 + 0.502X1 - 0.129X2 + 0.207Z$$

- **Variable Performance Budget Implementation** (X1) significant level $= 0.000 < \alpha 0.05$ or value $= 7.692 > 1.99$ thus $H_0$ is rejected and $H_1$ is accepted then it is concluded that partially variable performance budget implementation has a positive and significant effect on the performance accountability Vertical Hospital Directorate General of Health Services Ministry of Health.
- **Internal Control Variables** (X2) level of significance $= 0.127 > \alpha 0.05$ then $H_0$ is accepted and $H_1$ is rejected, it is concluded that internal control variables partially do not affect the performance accountability of Vertical Hospital Directorate General of Health Services Ministry of Health.
- **Information system** is tested as an independent variable (X3) significant level $= 0.014 < \alpha 0.05$, it is concluded that if the information system is used as an independent variable has a positive and significant effect on the performance accountability of the Vertical Hospital Directorate General of Health Services Ministry of Health.

**Moderating Test**

- It is known that the Prob value from $X_1Z$ is 0.988 $> 0.05$, so the information system is unable to moderate the effect of performance budget implementation on performance accountability with a coefficient of $X_1Z$ is 0.000, which is positive.
- It is known that the Prob value of $X_2Z$ is 0.141 $> 0.05$, so the information system is unable to moderate the influence of internal control on performance accountability with a coefficient value of $X_2Z$ is 0.034.

**5. CONCLUSION**

a. Performance budget implementation and internal control simultaneously have a positive and significant effect on the performance accountability of the vertical hospital of the Directorate General of Health Services of the Ministry of Health.

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### Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>318.490</td>
<td>3</td>
<td>106.163</td>
<td>31.073</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>204.994</td>
<td>60</td>
<td>3.417</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>523.484</td>
<td>63</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Significance value $F = 0.000 < \alpha = 0.05$, concluded that independent variables are performance budget implementation and internal control and information systems have a positive effect simultaneously on performance accountability.
b. Partially only performance budget implementation has a positive and significant effect on the performance accountability of the vertical hospital of Directorate General of Health Services of the Ministry of Health. The better the performance budget implementation, the more vertical hospital performance accountability will improve.

c. On the contrary, internal control variables do not affect the performance accountability of vertical hospitals of the Directorate General of Health Services. This shows that the implementation of internal control at the vertical hospital of Health Service does not affect the performance accountability of hospital.

d. The hospital information system cannot be a moderating variable that moderates (strengthens) the relationship between performance budget implementation and performance accountability of the vertical hospital of the Directorate General of Health Services of the Ministry of Health.

e. The hospital information system is also unable to moderate (strengthen) the relationship between internal control and the performance accountability of the vertical hospital of the Directorate General of Health Services of the Ministry of Health.

f. The results of the statistical t test show that the information system is better to be an independent variable than a moderating variable in which the information system affects performance accountability. The use of information systems has a positive and significant effect on the performance accountability of government agencies.

LIMITS
1. Adjusted R Square value is 0.589 or 58.9% shows that there are still other variables that might affect the performance accountability of government agencies that were not included in this study.

2. The researcher distributes questionnaires to respondents when the work unit is being evaluated by the Inspectorate General so that respondents are not able to focus when filling out questionnaires that can make misperceptions by respondents or the possibility of bias or nonconformity with the actual situation and contain elements of subjectivity.

6. RECOMMENDATION
1. Subsequent research is suggested to include other factors that are more complete and specific to performance accountability so that other factors that influence performance accountability are more tested such as HR competence, Management Commitment, Organizational Culture and others.

2. When filling out the questionnaire the researcher conducted direct interviews with respondents to obtain additional information and avoid biased or misperceptible results.

REFERENCE


