The Effect of Internal Control System, Accounting Information System and Human Resources Competence on the Quality of School Operational Assistance (BOS) Fund's Report in Mataram City

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Abstract

School Operational Assistance fund, locally known as BOS fund, is a program by Indonesian government that support education funding to improve access and quality of education, especially for basic education. As one of the responsibilities in implementing BOS fund, heads of education units that received BOS fund must submit a report on the realization of the use of BOS fund. Therefore, the education units must present a good and accountable report on BOS fund. This research aims to determine the effect of internal control system, accounting information system and human resources competence on the quality of school operational assistance (BOS) fund's report in Mataram City. This research is a quantitative research, with used primary data that obtained through distributed questionnaires to respondents. The population in this research were all elementary schools that received BOS funds on 2022 in Mataram City. The selection of the sample was done by used purposive sampling technique that obtained 35 schools with 105 respondents. The data analysis tool used was Partial Least Square (PLS) 4.0 version. The result showed that the internal control system had an effect on the quality of BOS fund's report, accounting information system had no effect on the quality of BOS fund's report, and human resources competence had an effect on the quality of BOS fund's report.

Keywords**:** internal control system; accounting information system; human resources competence; quality of BOS fund's report.

Introduction

Education is an important part of the national development process which contributes to increasing the progress of a country. One of the efforts carried out by the government to improve education services is the School Operational Assistance (BOS) program. The BOS Program is an operational assistance fund for the Education Unit for the operation of the Education Unit in organizing primary and secondary education (Permendikbudristek Nomor 63 Tahun 2022). As one of the responsibilities in implementing BOS, heads of Education Units receiving BOS funds must submit reports on the realization of the use of BOS funds through the School Activity Plan and Budget Application, called ARKAS, system provided by the Ministry of Education. The report in question includes a report on the realization of the use of funds in one fiscal year, a report on remaining funds, and a report on the completion of the implementation of the procurement of goods/services for the Education Unit (Permendikbudristek Nomor 63 Tahun 2022). The report will be used by interested institutions such as the Central Government, Ministry of Education, and Regional Education Offices, as well as stakeholders for making a decision. Therefore, the Education Unit must present a good and accountable report on BOS fund (Uviyanti & Pramuka, 2020).

However, nowadays, the phenomenon that often occurs is the problem of misappropriation and ineffective management of BOS funds, which affects the quality of the reports produced. The results of a research by Indonesia Corruption Watch (ICW) show that for 6 years from 2016 to September 2021, law enforcement officials have taken action on 240 corruption cases in the education sector, where most corruption is related to the use of BOS funds (databoks.katadata.co.id, 2022). Cases of irregularities related to BOS funds also occurred in the Province of NTB, namely the use of BOS funds was not followed by a valid accountability report, late reports, and violations of provisions that were not intended (lombokpost.jawapos.com, 2022).

Based on the phenomena that have been described above, it can be seen that the quality of reports on BOS funds is influenced by many factors. In Yuningsih et al. (2022), Fadhlurrahman (2019), Uviyanti & Pramuka

(2020), Kharismayani et al. (2020), Sakriaty et al. (2018), Hutomo & Damayanti (2015), Sopian et al. (2022), Amrullah (2019), Putra & Suryanawa (2022), Safitri & Sulkhanul (2021), and Yulyanti et al. (2021), factors that affect the quality of reports on BOS funds include internal control systems, accounting information systems, human resource competence, government regulations, good governance, performance-based budgeting, school management functions, stakeholder participation, accountability, and transparency. However, the focus of researchers in this research is internal control systems, accounting information systems, and human resource competence.

Based on the explanation from the background above, the purpose of this research were (1) to determine the effect of the internal control system on the quality of BOS fund's report, (2) to determine the effect of accounting information systems on the quality of BOS fund's report, and (3) to determine the effect competence of human resources on the quality of BOS fund's report.

Methods

This research used a quantitative approach with associative design. Associative research is a research method that asks the relationship between two or more variables (Sugiyono, 2017). The population in this research were all elementary schools that received BOS funds on 2022 in Mataram City. The selection of the sample was done by used purposive sampling technique. The criteria for selecting the sample were elementary schools that received BOS fund in 2022 who were on time in submitting reports on BOS fund each year. Based on these criteria, the sample was 35 elementary schools. Each school had 3 respondents as managers of BOS fund, consisting of school principals, school treasurers, and school operators, bringing the total number of respondents was 105 people. The data sources used was a primary data. The data collection technique used was a questionnaire. The type of questionnaire that researchers use is a closed questionnaire. The data analysis tool used was Partial Least Square (PLS) 4.0 version.

The variables studied in this research consisted of (1) independent variables or exogenous variables, namely internal control systems, accounting information systems, and human resource competencies, and (2) dependent variables or endogenous variables, namely the quality of reports on BOS funds. The indicators used in these variables are (1) internal control system indicators according to Committee of Sponsoring Organizations of the Treatway Commission (COSO), namely control environment, risk assessment, control procedures, supervision, information and communication; (2) indicators of accounting information systems, namely ease of use, speed of access, system reliability, flexibility, security; (3) indicators of human resource competence, namely self-development, professionalism, mastery of technology, educational level, expertise; (4) indicators of the quality of reports on BOS funds that refer to indicators of the quality of government financial reports according to Government Regulation Number 71 of 2010, namely relevant, reliable, comparable, understandable.

Findings dan Discussion

The data analysis used in this research are descriptive statistical analysis and Partial Least Square (PLS) analysis using the software of SmartPLS 4.0 version.

1. Descriptive Statistical Analysis

   Descriptive statistics in this research are presented to provide an overview of the characteristics of the research variables, including the minimum value, maximum value, mean, and standard deviation. The results of descriptive statistics in this research are presented in table 1.

   Table 1. Descriptive Statistics

Variable	N	Min	Max	Mean	Standard Deviation
(X1) Internal Control Systrem	105	1	5	4.57	3.64
(X2) Accounting Information System	105	2	5	4.50	3.42

Variable	N	Min	Max	Mean	Standard Deviation
(X3) Human Resource Competence	105	1	5	4.10	3.22
(Y) Quality of BOS Fund's Report	105	3	5	4.54	4.04

In table 1, it can be seen that the results of the respondents' answers to all variables have a mean value greater than the standard deviation, which indicates the data distribution is normal and there are no data deviations.

2. Partial Least Square (PLS) Analysis

PLS analysis in this research was carried out through several stages, namely:

a) Convergent Validity Test

Convergent validity in SmartPLS with reflective indicators is measured based on the loading factor value of the indicators that measure these variables. A variable is said to be valid if each indicator has a loading factor value > 0.7, but a loading factor value of 0.5 to 0.6 is still considered sufficient (Ghozali & Latan, 2015). The loading factor values in this research are presented in the research model in Figure 1.

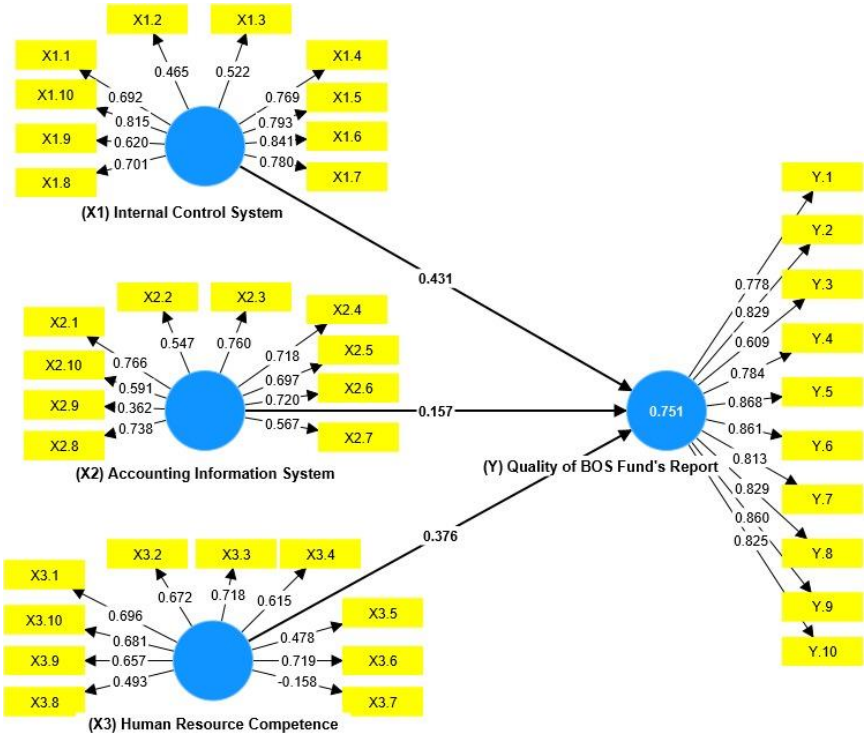

Figure 1. Research Model Before Elimination

Based on Figure 1, it can be seen that statements whose results are invalid, namely having a loading factor value below 0.5. This will cause the data cannot be processed further. Therefore, statements that have a loading factor value below 0.5 need to be eliminated or deleted from the research model, so that the data can be processed further.

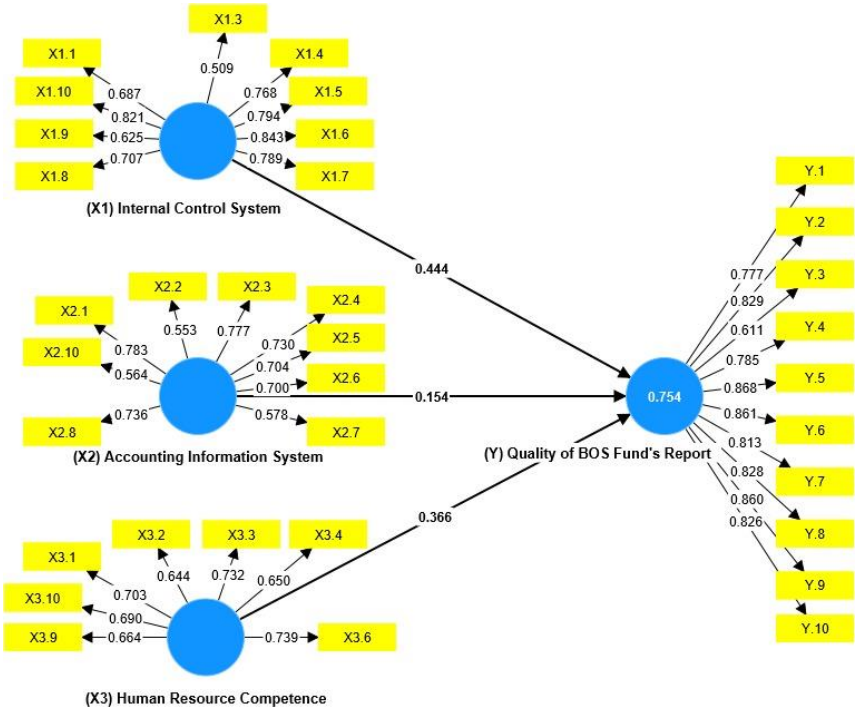

Figure 2. Research Model After Elimination

Based on Figure 2, it can be seen that invalid statements have been eliminated or deleted from the research model, including X1.2, X2.9, X3.5, X3.7, and X3.8.

b) Discriminant Validity Test

The discriminant validity test is used to see that each indicator in a variable will be different from the indicators in other variables. For discriminant validity in this research was tested with the cross loading values presented in table 2.

Table 2. Cross Loading

	(X1) Internal Control System	(X2) Accounting Information System	(X3) Human Resource Competence	(Y) Quality of BOS Fund's Report
X1.1	0.687	0.467	0.367	0.485
X1.3	0.509	0.353	0.306	0.450
X1.4	0.768	0.452	0.535	0.601
X1.5	0.794	0.585	0.548	0.618
X1.6	0.843	0.549	0.483	0.630
X1.7	0.789	0.565	0.500	0.581
X1.8	0.707	0.522	0.491	0.640
X1.9	0.625	0.554	0.562	0.578
X1.10	0.821	0.627	0.577	0.650
X2.1	0.617	0.783	0.504	0.554
X2.2	0.305	0.553	0.295	0.317
X2.3	0.460	0.777	0.504	0.556
X2.4	0.653	0.73	0.432	0.591
X2.5	0.491	0.704	0.555	0.500

	(X1) Internal Control System	(X2) Accounting Information System	(X3) Human Resource Competence	(Y) Quality of BOS Fund's Report
X2.6	0.578	0.700	0.656	0.577
X2.7	0.357	0.578	0.412	0.331
X2.8	0.426	0.736	0.617	0.524
X2.10	0.415	0.564	0.439	0.492
X3.1	0.455	0.381	0.703	0.438
X3.2	0.363	0.335	0.644	0.448
X3.3	0.601	0.628	0.732	0.662
X3.4	0.352	0.473	0.650	0.516
X3.6	0.630	0.712	0.739	0.649
X3.9	0.341	0.480	0.664	0.441
X3.10	0.401	0.385	0.690	0.511
Y.1	0.712	0.522	0.598	0.777
Y.2	0.666	0.617	0.582	0.829
Y.3	0.424	0.456	0.561	0.611
Y.4	0.636	0.579	0.563	0.785
Y.5	0.687	0.705	0.769	0.868
Y.6	0.695	0.619	0.621	0.861
Y.7	0.635	0.617	0.721	0.813
Y.8	0.660	0.570	0.696	0.828
Y.9	0.708	0.643	0.573	0.86
Y.10	0.607	0.613	0.567	0.826

Based on table 2, it can be seen that the cross loading value indicates good discriminant validity because the indicator correlation value is higher than the other variables. The cross loading test must show a higher indicator value for each variable compared to indicators for other variables (Sekaran & Bougie, 2016). For example, the X3.3 cross-loading value of 0.732 is higher than the quality of BOS fund's report (0.662), internal control systems (0.601), and accounting information systems (0.628).

c) Reliability Test

The reliability test in this research was measured by the value of composite reliability and cronbach's alpha. A variable is said to be reliable if the composite reliability value is > 0.7 and the cronbach's alpha value is > 0.7 (Ghozali & Latan, 2015). The results of composite reliability and cronbach's alpha test are presented in table 3.

Table 3. Reliability Test

	Cronbach's Alpha	Composite Reliability
Internal Control System	0.889	0.912
Accounting Information System	0.857	0.887
Human Resource Competence	0.818	0.864
Quality of BOS Fund's Report	0.94	0.949

Based on table 3, it can be seen that all variables are declared reliable because they have composite reliability and Cronbach's alpha values above 0.7 so it can be concluced that all variables in this research have good reliability.

d) R-Square (R^2) Test

The R-Square value is used to determine how much influence the exogenous variables have on the dependent variable, where an R^2 value of 0.75 is considered high, 0.50 is considered moderate, and 0.25 is considered weak (Ghozali & Latan, 2015). The value of R^2 is presented in table 4.

Table 4. R-Square Test

	R-square
Quality of BOS Fund's Report	0.754

Based on table 4, it can be seen that the R^2 value is 0.754 or 75.4%. This shows that the ability of the internal control system variables, accounting information systems, and human resource competencies in explaining the variable quality of BOS fund's report is 75.4%%, while the remaining 24.6% is explained by other variables in outside that are discussed in this research, such as government regulations, good governance, performance-based budgeting, school management functions, stakeholder participation, accountability, and transparency.

e) Predictive Relevance (Q^2) Test

Furthermore, a predictive relevance test is carried out where if the value of $Q^2 > 0$ indicates that the model has predictive relevance, whereas if $Q^2 < 0$ indicates that the model lacks predictive relevance (Ghozali & Latan, 2015). The Q^2 value is obtained by entering the R^2 value into the following formula:

$$Q^2 = 1 - (1 - R^2)$$
$$= 1 - (1 - 0{,}754)$$
$$= 0{,}754$$

Based on the results of these calculations, the Q^2 value is greater than 0 and the same as the R^2 value, so it can be concluded that the latent variables used in this research model have predictive relevance.

f) Hypothesis Test

Hypothesis testing is done by looking at the probability values and t-statistics. For probability values, the p-value with alpha 5% is <0.05 and the t-table value for alpha 5% is 1.96 (Ghozali & Latan, 2015). The results of hypothesis test are presented in table 5.

Table 5. Path Coefficients

	Original Sample (O)	***Sample Mean (M)***	***Standard Deviation (STDEV)***	***T statistics (|O/STDEV|)***	***P values***
Internal Control System -> Quality of BOS Fund's Report	0.444	0.441	0.078	5.671	**0**
Accounting Information System -> Quality of BOS Fund's Report	0.154	0.161	0.095	1.622	**0.105**
Human Resource Competence -> Quality of BOS Fund's Report	0.366	0.367	0.090	4.091	**0**

Based on table 5, it can be seen that:

1) The Internal Control System variable has a P value of 0, where the value is <0.05, meaning that the hypothesis is accepted, so this research accepts the first hypothesis (H1). This shows that the internal control system has an effect on the quality of BOS fund's report. The effect is proven

positive with the coefficient value of the internal control system latent variable at the output path coefficients of 0.444, which means that there is a positive effect of 44.4% on the variable quality of BOS fund's report. This shows that if the internal control system in each school can be implemented properly, then the quality of the BOS fund's report produced will be good. The better the implementation of the internal control system, the better the quality of the BOS fund's report produced.

2) The Accounting Information System variable has a P value of 0.105, where the value is > 0.05, meaning that the hypothesis is rejected, so this research does not accept the second hypothesis (H2). This shows that the accounting information system has no effect on the quality of BOS fund's report. In this research, the accounting information system in the form of ARKAS had no effect on the quality of reports on BOS funds because it was only used as a media so that managers of BOS fund in each school could easily carry out the process of planning, budgeting and reporting BOS fund, as well as making it easier for the authorities to carry out auditing. The better or worse the ARKAS used by each school, there was no effect on increasing or decreasing the quality of the BOS fund's report produced. This is because the BOS funds themselves already have guidelines that regulate so that managers can produce good reports of BOS funds, which are written in Permendikbudristek Number 63 of 2022.

3) The Human Resource Competency Variable has a P Value of 0, where the value is <0.05, meaning that the hypothesis is accepted, so this research accepts the third hypothesis (H3). This shows that the competence of human resources affects the quality BOS fund's report. The effect is proven positive with the coefficient value of the human resource competency latent variable at the output path coefficients of 0.366, which means there is a positive effect of 36.6% on the variable quality of BOS fund's report. This shows that if the managers of BOS fund in each school have good competence, they will be able to produce good reports of BOS fund. The better the competence of human resources, the better the quality of the BOS fund's report produced.

Conclusion

The conclusions in this research are the internal control system had an effect on the quality of BOS fund's report, accounting information system had no effect on the quality of BOS fund's report, and human resources competence had an effect on the quality of BOS fund's report.

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