

The Effect of the Effectiveness of the Whistleblowing System on Fraud Disclosure

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ABSTRACT

This study aims to examine the effect of the effectiveness of the whistleblowing system on fraud disclosure. There are 148 respondents used as a sample of this study, where they are determined by purposive sampling technique and using Structural Equation Model Partial Least Square (SEM-PLS) with SmartPLS 3.0 software. The analysis results show that the whistleblowing system's effectiveness positively affects fraud disclosure. This research is expected to be an essential input for increasing the internal supervision of local government inspectorates, especially the Bali Regional Inspectorate, which includes the Provincial Inspectorate and Regency/City Inspectorate throughout Bali.

KEYWORDS - Fraud Disclosure, Whistleblowing System, and Bali Regional Inspectorate.

1. INTRODUCTION

Good governance is the principle of adequate, clean, transparent, and efficient governance. Good governance is inseparable from three essential aspects, namely inspection, control, and supervision; therefore, realizing good governance in the local government environment is inseparable from the role of the Regional Inspectorate. The existence of Regional Inspectorate has not been able to prevent and give early detection of any fraud action committed in the local government environment. Its failure happens due to several factors: the effectiveness of the whistleblowing system to all Regional Inspectorates. Basri et al., (2017) examined the factors that cause society to refuse to become whistleblowers. The results of this study show that whistleblowing systems are appropriately used to reveal fraud in the public sector, and the government can create a new model for people to be willing to become whistleblowers (Basri et al., 2017). Triantoro et al. (2020) further examined the influence of the whistleblowing system and Machiavellian personality on fraud disclosure. This study shows that the intention to commit fraud will rise if the whistleblowing systems are absent, and the Machiavellian nature significantly increases the desire to commit fraud (Triantoro et al., 2020). The study conducted by Seda & Tilt (2020) related to fraud disclosures by public sector entities in Australia. The findings of this study show that public sector institutions and bodies tend to disclose qualitative data compared to measurable and valid data. Thus, this tendency may implicate the failure of annual reports to ensure public funds are spared from abuse (Seda & Tilt, 2020). Based on some empirical studies explained above, we may draw a hypothesis that the number of early detection and disclosure of fraud in an organization will rise if whistleblowing systems are applied more effectively.

2. RESEARCH METHOD

This research took place in Bali Provincial Inspectorate and Bali District/City Inspectorate since Inspectorate is an internal supervisor agency that is watching on all implementation of the regional maintenance on Regional Government Budget (APBD), especially in Bali. There are 148 respondents used as study samples, where they were chosen using purposive sampling techniques. This study also used primary data sources that was conducted using questionnaire techniques. The respondents' answers to the questionnaire were measured using a four-point Likert scale because it avoids double interpretation and indecision of respondents' attitudes in the problems studied (Azwar, 1997). Questionnaires in printouts are delivered directly to each agency which becomes a respondent. Meanwhile, the data analysis methods used in this study are descriptive statistical analysis with SPSS software version 20 and the Structural Equation Partial Least Square (SEM-PLS) technique with SmartPLS software version 3.0 to test the instrument and hypothesis of the study.

3. RESULT AND DISCUSSION

Tabel 1. The Descriptive Statistical Analysis Test Results

	N	Min.	Max.	Mean	Std. Deviation
Whistleblowing system effectivity (X)	148	29.00	40.00	33.8851	3.17842
Fraud disclosure (Y)	148	29.00	40.00	34.8041	3.05652
Valid N (listwise)	148				

Source: The Processed Primary Data, 2022

Respondents in this study were dominated by people who had a bachelor degree (52.03%), had been working for 2-5 years (89.86%), were junior auditors (59.86%) and became team members in his audit assignment (55.40%) from the total number of samples.

The whistleblowing system effectiveness variable has a minimum value of 29.00 and a maximum of 40.00. The average value for the whistleblowing system variable is 33.8851 with a standard deviation of 3.17842. This finding suggests that the study's independent and dependent variable have a more excellent average value than the standard deviation value; thus, the data is categorized as heterogeneous. The second test is testing the research instruments through conducting outer models test

Tabel 2. The Convergent Validity Test Results

Variable	Indicator	Outer Loading Factor	AVE
Whistleblowing system effectivity	X1	0,752	0,467
	X2	0,878	
	X3	0,699	
	X4	0,775	
	X5	0,292	
	X6	0,499	
	X7	0,407	
	X8	0,646	
	X9	0,408	
	X10	0,753	
Fraud Disclosure	Y1	0,245	0,405
	Y2	0,649	
	Y3	0,677	
	Y4	0,665	
	Y5	0,797	
	Y6	0,819	
	Y7	0,773	
	Y8	0,265	
	Y9	0,650	
	Y10	0,406	

Source: The Processed Primary Data, 2022

A construct's convergence validity with an indicator of reflection can be seen through the magnitude correlation between the indicator value and its construct value. The correlation construct indicator can be valid if the indicator value with its construct correlates greater than 0.70 (Ghozali, 2014). However, a correlation rate of more than 0.70 would be challenging to obtain in the early stages of developing a research indicator, so the loading score of 0.50 to 0.60 is considered sufficient (Chin, 1998). The result analysis of convergent validity can be observed through the loading factor values and the average variance extracted (AVE) values. This study limited the loading factor value and AVE score of 0.50. Indicators Y1, Y8, and Y10 show the correlation values below 0.50, so these statement items are not further investigated or no longer related to the study. Additionally, these indicators must be eliminated before re-examining the research. The discriminant validity test test is conducted after the convergent validity testing. The results are as follows.

Tabel 3. The Discriminant Validity Test Result

Questions	The Variables of The Study		
	WSE	EPC	FD
X1	0,752	-0,888	0,502
X2	0,878	-0,190	0,627
X3	0,699	-0,178	0,419
X4	0,775	-0,226	0,614
X5	0,292	-0,003	0,191
X6	0,499	-0,283	0,267
X7	0,507	-0,361	0,368
X8	0,646	-0,119	0,476
X9	0,408	-0,164	0,335
X10	0,753	-0,240	0,653
Y1	0,185	-0,202	0,245
Y2	0,441	-0,171	0,649
Y3	0,496	-0,308	0,677
Y4	0,451	-0,266	0,665
Y5	0,482	-0,279	0,797
Y6	0,648	-0,291	0,819
Y7	0,629	-0,187	0,773
Y8	0,220	-0,309	0,265
Y9	0,461	-0,293	0,650
Y10	0,332	-0,188	0,406

Source: The Processed Primary Data, 2022

All the statement items in the research instrument show that each indicator—which builds a variable—has a higher correlation value towards the variable it creates than other variables.

The following instrument test is the reliability testing. For this case, the data analysis techniques were done using SmartPLS software, and the results are observed from the Cronbach Alpha and Composite Reliability value of each indicator respectively. The indicator is declared reliable if the Cronbach Alpha and Composite Reliability value exceeds 0.70 (Ghozali, 2014).

Tabel 4. The Reliability Test Result

Variable	Cronbach Alpha	Composite Reliability	Description
Whistleblowing System Effectivity (WSE)	0,841	0,876	Reliable
Fraud disclosure (FD)	0,813	0,860	Reliable

Source: The Processed Primary Data, 2022

The Cronbach Alpha and Composite Reliability generated by all the research variables show values above 0.70. This result indicates that the indicators of each construct are eligible for reliability testing.

Tabel 5. The Second Convergent Validity Test Result

Variable	Sentences	Outer Loading Factor	AVE	Descriptions
Whistleblowing System effectivity (WSE)	X1	0,814	0,604	Valid
	X2	0,897		Valid
	X3	0,724		Valid
	X4	0,824		Valid
	X8	0,627		Valid
	X10	0,748		Valid
Fraud disclosure (FD)	Y2	0,684	0,536	Valid
	Y3	0,715		Valid
	Y4	0,683		Valid
	Y5	0,816		Valid

	Y6	0,815	Valid
	Y7	0,771	Valid
	Y9	0,661	Valid

Source: The Processed Primary Data, 2022

Some outer loading factor values and AVE values in the convergent validity test are still below 0.50. Therefore, modifying the research model must be made by deleting indicators that have not reached the specified limit. The modification validity and reliability tests are performed with the same stages and trials. However, the statement items of X5, X6, X7, X9, Y1, Y8, and Y10 – which are still below 0.50 – are not included in the new examination.

Table 6. The Second Discriminant Validity Test Result

Questions	The Variables of The Study		
	WSE	EPC	FD
X1	0,814	-0,059	0,500
X2	0,897	-0,195	0,627
X3	0,724	-0,081	0,426
X4	0,824	-0,225	0,623

Questions	The Variables of The Study		
	WSE	EPC	FD
X8	0,627	-0,126	0,451
X10	0,748	-0,254	0,623
Y2	0,477	-0,193	0,684
Y3	0,518	-0,306	0,715
Y4	0,475	-0,276	0,683
Y5	0,498	-0,301	0,816
Y6	0,641	-0,314	0,815
Y7	0,608	-0,207	0,771
Y9	0,426	-0,313	0,661

Source: The Processed Primary Data, 2022

The testing validity of discriminants on the modified models showed good results because the correlation value of each indicator towards the variables it built is greater than the correlation value of each indicator that generates a variable against another. Both validity tests with modified models to the indicators in this research have qualified the terms and limits specified, so they are safe to be called valid.

Table 7. The Second Reliability Test Result

Variable	Cronbach Alpha	Composite Reliability	Description
Whistleblowing system effectivity (WSE)	0,866	0,900	Reliable
Fraud disclosure (FD)	0,853	0,889	Reliable

Source: The Processed Primary Data, 2022

The construct reliability test in this study showed the values of Cronbach Alpha and Composite Reliability was above 0.70 each; therefore, it can be concluded that all indicators from the research instrument have met the reliable criteria. Afterwards, the next test, the structural model (inner model) test, can be conducted. The inner model test is evaluated using R-square, Q-square, and path coefficient scores.

Table 8. The R-square Score

Variable	R square score
Fraud disclosure (FD)	0,567

Source: The Processed Primary Data, 2022

The R-square score of the fraud disclosure variable, which is an endogenous construct in this study, is 0.567. This score means that 56.7% of the fraud disclosure construct is explained by the effectiveness of the whistleblowing system variable as an exogenous construct. At the same time, the remaining 43.3% was explained by other factors where was outside of the model. The Q square score has a value size with a range of $0 < Q^2 < 1$, where the value close to 1 indicates the model has improved predictive relevancy. On the other hand, if the Q square value < 0 ,

the research model has less predictive relevance (Irwan & Adam, 2015). The Q square calculation in this study was 0.32, and this figure shows that the structural model used has a pretty good predictive relevancy.

Table 9. The Path Coefficient Score

Hypothesis	Original Sample	T-Statistic	P-Value
Whistleblowing System effectivity (WSE) → Fraud disclosure (FD)	0,670	15,055	0,000

Source: The Processed Primary Data, 2022

The P-Value score is 0.000 (<0.05), and the original sample score is 0.670. This finding means that the first hypothesis (H1) is acceptable, and the effectiveness of whistleblowing systems positively affects fraud disclosure. These results interpret that the fraud disclosure becomes better if the effectiveness level of whistleblowing systems applied in an organization is high. This situation may occur due to a heightened understanding from the organization's internal whistleblowers related to fraud reporting systems to report fraud actions in their ecosystems.

The results of this study are linear to the Planned of Behavior theory (Ajzen, 1991) that the main factor of someone's behaviour is performed according to their intention. The intention is influenced by three fundamental elements: attitudes toward behaviour, subjective norms, and perceptions of control. Attitudes towards behaviour reflect a person's attitude to a social situation so that they tend to act under their personal beliefs. It means the more someone believes that their whistleblowing system is well-applied and often occurs, thus, the number of fraud will decrease significantly and be easier to be revealed.

Subjective norms affect someone's intentions in making decisions on others, the environment and their surrounding conditions. Individuals will strongly want to be involved in the whistleblowing system if their organisation's domain, friends, or superiors support whistleblowing. The company could improve their report systems management and give protection against the whistleblowers to increase the effectiveness of their whistleblowing systems. The control of perceptual behaviour will affect more experiences and information of an individual. It also will strengthen their will to take part in the whistleblowing actions—where in this study, this case is related to the respondents' position as APIP. Therefore they have sufficient experience and information to perform whistleblowing actions.

The test results in this study are consistent according to the theory of the Employee Silence System and the Motivated Reasoning Theory. The view of the Employee Silence System (Van Dyne et al., 2003) examines the silence carried out by employees in an agency. In this study, the APIP Inspectorate, a local government auditor who is still under the authority of a party he supervises, is the organization of regional devices (OPD). Van Dyne et al., (2003) formulated three categories of the silence of an employee, namely acquiescent silence (someone's silence to restrain his ideas by withdrawing himself from problems that he knows), prosocial silence (an attitude of concealment of views, opinions, and information, work to provide beneficial benefits for others or organizations based on concern for others). Brinsfield (2009) developed the category of silence into four clusters, namely acquiescent silence, prosocial silence, self-protective silence (the silence of employees based on fear of material loss if they speak up about something, so they have to protect themselves), and deviant silence (a silent attitude based on the desire to hurt or cause harm to others intentionally).

Motivated Reasoning Theory (Kunda, 1990) states that an individual's motivations, goals, or preferences influence their decision or decision-making process. Motivated reasoning theory is divided into two categories, namely accuracy goals and directional goals. Accuracy goals are related to someone who has a motivation to reach the most accurate goal or conclusion. In contrast, directional goals relate to individuals who motivate to achieve the best-suited goal per their wishes.

APIP, as an internal government auditor, in their decision making related to its supervisory function, will begin with initial cognition based on facts in the field. If an APIP Inspectorate has a high independence attitude and aims to make accurate decisions based on points in the area, then this APIP Inspectorate has accuracy goals.

4. CONCLUSION

The findings in this study showed the effectiveness of whistleblowing systems has a positive effect on fraud disclosure. This finding reflects the increasing number of fraud disclosures if the whistleblowing system is well-applied in the Bali local government environment.

The limitation in this study that the research instrument used in this study does not include the study case as an introductory to provide an understanding and overview to respondents regarding the focus of the studied problem. Consequently, respondents are not aware of the party of the research object and the issue in question. The results of this study are expected to be essential inputs in implementing internal supervision of local government Inspectorates, especially in the provincial and district/city throughout Bali.

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