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Internal control in village government: the case of Indonesia's village government

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Abstract: *Previous studies have documented the importance of internal control for an organisation. However, they failed to give attention to the village government, the lowest tier government in Indonesia. This study aims to develop an internal control concept into several factors and to examine any difference in internal control between timely or non-timely accountability reports and village-based tourism or non-village-based tourism. Using fifty-three village governments in Pariaman city, we employed three-stage analyses: explanatory factor analysis (EFA), confirmatory factor analysis (CFA), and univariate analysis. SPSS and smart-pls are used to conduct the above analysis. The EFA result shows that there are three factors created: environment, communication, control, activity (ACCA), management style, risk control effectiveness (MSRCE), and change management and monitoring (CMM). In addition, the CFA result also confirms these three factors with a reduced number of observed variables for MSRCE and CMM. Univariate analysis shows that only one variable from each factor differs between timely and non-timely accountability reports. This study has practical and theoretical implications, and they are discussed in detail in this paper.*

Keywords: internal control, village government, Indonesia

JEL: R11, R38

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Introduction

A strong internal system is one critical aspect of a high-performance organization (Dangi et al., 2020). The existence of internal control within local government has an overarching factor in achieving an organisational objective and reducing financial fraud (Shonhadji & Maulidi, 2020). The internet financial disclosure depends on the

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local government's internal control system (Moreno-Enguix et al., 2019). The internal control function is associated with financial information quality (Gebrayel et al., 2018), an accrual quality (Lu et al., 2011), accounting conservatism (Ji et al., 2016), audit fee (Hay et al., 2008), audit report lag (Munsif et al., 2012), and management guidance (Feng et al., 2009).

The committee of sponsoring organizations of the Treadway Commission (COSO) has built an internal control system framework. In addition, the framework consists of five interrelated factors which can be used by various types of organizations, including non-profit oriented organizations, such as public sector organizations (Dangi et al., 2020). The factors are a control environment, risk assessment, control activity, information and communication, and monitoring (COSO, 2013). IC design should fit the specific characteristics and meet their organization's goal (Vu et al., 2021). An organisation's value in improving oversight and supervision, thus reducing and preventing misconduct activity such as fraud or misappropriation of assets, is significantly related to an effective internal control system (Rahim et al., 2017). However, the importance of internal controls in public sector is often ignored, particularly internal control for village government.

1. Literature review

The village government is considered the lowest level of government in Indonesia's administrative hierarchy (Antlöv et al., 2016). Since January 2014, the village has had a new regulation (Law 6/2014 on the village). This law aims to overcome the weakness in the decentralization paradigm. In addition, it also provides the villages with increased budget allocations and improves government arrangements (Antlöv et al., 2016). However, there are still many cases regarding corruption, such as markup of village fund allocation and violation in administrative services (Susan & Budirahayu, 2018). Moreover, the village fund would be around Rp 400 trillion from 2019 to 2024 (Kompas, 2019). However, the fraud case in Indonesian village government servants during 2019 was 158 cases (Detik, 2019).

Studies on village government have been conducted by previous researchers (Antlöv, 2010; Ariyanti & Alfatih, 2018; Handayati & Palil, 2020; Indriasari et al., 2020; Nazir, 2017; Susan & Budirahayu, 2018). But none of these studies investigates the practice of internal control in village government. Even though there are so many previous studies about internal control (Afiah & Azwari, 2015; Bandiyono, 2021; Dangi et al., 2020; Hakim et al., 2016; Mardi et al., 2020; Moreno-Enguix et al., 2019; Shonhadji & Maulidi, 2020; Yunirwati & Rizaldi, 2015), however, these previous studies have not focused on internal control for village government. Therefore, there is a desire to investigate the practice of internal control in village government in Indonesia. This study aims to examine the practice of internal control in village government using the COSO framework. Especially, this study is to group an observed variables from previous studies and internal control

dimensions from COSO into several factors in the context of sector public. Besides, this study also determines whether these practices differ between village government accountability reporting and village type (tourism-based or not tourism-based). Table 1 demonstrates the observe variable for internal control from several literature including COSO framework. There are twenty-nine variables included in this study.

Table 1. Observed variable

Observed variables	Reference	Code
Management operating style and philosophy	(COSO, 2013; Dangi et al., 2020; Moreno-Enguix et al., 2019; Rahim et al., 2017; Vu et al., 2021)	ic1
supportive attitude		ic2
Competence		ic3
Integrity and ethical value		ic4
Morale		ic5
Mission		ic6
Structure		ic7
Provide timely information		ic8
It can be tailored to individual need		ic9
Inform the employee of their duties and responsibility		ic10
Enable the reporting sensitive matter		ic11
Enable employees to provide a suggestion for improvement		ic12
Provide information necessary for all employees		ic13
Convey and enable communication with external parties		ic14
Documentation		ic15
Verification		ic16
Supervision		ic17
Separation of duties		ic18
Safeguarding asset		ic19
Reporting		ic20
Preparing to assess risk		ic21
Risk assessment process		ic22
Managing risk		ic23
Preventing and reducing risk		ic24
Managing risk during change		ic25
Staff (task force)		ic26
Supervisor (divisional head)		ic27
Mid-level manager (village government secretary)		ic28
Executive management (head of village government)		ic29

2. Research Methodology

Village governments in Pariaman city, Indonesia, is research object. There are fifty-five village governments in this city. We use all populations as a research sample. Primary data is gathered through a survey to this government office. The government

office secretary is expected to complete the questionnaire. Research instruments use the COSO framework, with five dimensions and thirty observed variables. Therefore, the instrument is based on the COSO. The data is analysed using three stages: explanatory factor analysis (EFA), confirmatory factor analysis (CFA), and univariate analysis. EFA aims to produce how many factors can be developed the internal control using public sector data (village government) using SPSS. The result of EFA would be confirmed using CFA using SEM-PLS second order. Finally, univariate analysis is conducted to investigate any difference in this internal control from the timeliness of accountability report and village type (tourism-based or non-village based).

3. Research results and discussions

Fifty-three village governments are participating in this study. The demographic data of this village government can be seen in Table 2. The average village population is 1,356 people, with the mean value of the village area being 1.05 KM^2. In addition, the average yearly village annual budget is Rp. 188,975 million. Further, the village governments are leaded by the head village government, age 49.03-year-old on average. Thus, the supervisory board size is 5.78 members on averagely.

Table 2. Village government characteristics

Village Government Characteristic	Min	Max	Mean	Std. Deviation
Population (people)	323	3,497	1,356	706
Village area (Km^2)	0.21	4.34	1.05	0.70
Yearly budget (Rp Million)	117,381	269,726	188,975	29,030
Head of VG age (year)	33	70	49.03	9.90
Supervisory board size (member)	5	9	5.78	1.33

Source: village government agency

This study used the primary data to see the internal control in the village government. The data is gathered through a survey, and the village government secretary is the research respondent. The average age of respondents is 35.72 years old. Regarding sex, 30% of respondents are male, and the rest are female. Thus, 46% of village government secretary is bachelor graduates, and the rest is senior high school graduates (36%), diploma graduates (12%) and postgraduates (6%). Further, the educational background of the secretary is dominated by non-economics (83%).

3.1 Exploratory factor analysis (EFA)

The exploratory factor analysis is applied to produce the observed variable into several factors. This technique is employed to analyze the interrelationship among largely observed variables in terms of their similar underlying proportion (Hair et al., 2014). Factor analysis aims to lessen a large set of observed variables to a smaller

and manageable underlying dimension (Fidle, 2009; Kim & Muller, 1978). There are several steps to conduct the EFA: sampling adequacy test (Bartlett, 1950; Kaiser, 1970) component analysis (Denis, 2019; Hair et al., 2014) using eigenvalue and scree plot (Churchill & Iacobucci, 2004).

The exploratory factor analysis is started with a test of sample adequacy. There are two types of tests to see the sample adequacy: Kaiser Meyer Olsen (KMO) and anti-image correlation (Kaiser, 1970). Table 3 shows the result of sample adequacy. According to KMO and Bartlet test, this sample size is adequate (Hair et al., 2014). The value of KMO should be above 0.50 (0.86), and the Bartlet test significance is less than 0.05 (0.00). In addition, anti-image correlation must be above 0.50, and as shown in table 4 (see diagonal value), all correlation coefficient is above 0.50.

Table 3. Test of sample adequacy

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.86
Bartlett's Test of Sphericity	Approx. Chi-Square	1037.72
	df	231
	Sig.	0.00

Having produced the sample adequacy, the subsequent analysis is factor extraction using Eigenvalue values. Table 4 indicate the number factor created using Eigenvalue. Based on the result, three factors are produced due to their Eigenvalue above 1 (see table 5). The scree plot also indicates three factors created graphically (see figure 1).

Table 4. Anti-image correlation

	ic1	ic2	ic3	ic5	ic6	ic7	ic9	ic11	ic15	ic16	ic17	ic18	ic19	ic21	ic22	ic23	ic26	ic27	ic28	ic29	ic20	ic25
ic1	0.81																					
ic2	-0.48	0.84																				
ic3	-0.24	0.27	0.78																			
ic5	-0.12	0.27	0.04	0.92																		
ic6	-0.33	0.17	0.08	-0.31	0.90																	
ic7	-0.08	-0.05	-0.19	-0.08	-0.36	0.90																
ic9	0.24	-0.36	0.14	-0.34	-0.22	-0.13	0.87															
ic11	0.13	-0.32	-0.52	-0.04	-0.09	0.00	-0.19	0.88														
ic15	-0.12	0.04	-0.18	0.03	0.08	0.09	-0.42	0.07	0.91													
ic16	0.37	-0.42	-0.43	-0.25	-0.17	0.08	0.20	0.25	-0.23	0.80												
ic17	-0.38	0.14	-0.04	-0.07	-0.07	0.22	-0.08	-0.02	0.08	-0.23	0.90											
ic18	0.27	-0.25	-0.08	-0.14	-0.06	-0.18	0.28	0.16	-0.31	0.24	-0.36	0.89										
ic19	-0.37	0.21	0.30	0.01	0.26	-0.00	-0.22	-0.14	-0.03	-0.38	0.07	-0.29	0.85									
ic21	-0.11	0.06	0.24	0.12	0.24	-0.36	0.11	-0.14	-0.34	-0.13	0.07	0.16	-0.01	0.82								
ic22	-0.13	-0.02	-0.35	-0.04	-0.03	0.23	-0.04	0.06	0.06	0.24	0.09	-0.19	-0.01	-0.45	0.85							
ic23	0.43	-0.23	-0.41	-0.20	-0.23	0.11	0.20	0.26	-0.14	0.41	-0.25	0.27	-0.52	-0.18	-0.04	0.78						
ic26	-0.31	0.10	0.06	0.03	0.03	0.21	-0.17	-0.02	0.06	-0.07	0.35	-0.20	0.11	-0.09	0.11	-0.27	0.91					
ic27	-0.37	0.35	0.44	0.24	0.26	-0.33	-0.23	-0.16	0.06	-0.55	-0.12	-0.07	0.38	0.30	-0.34	-0.38	-0.20	0.80				
ic28	0.22	-0.22	-0.30	-0.22	0.01	0.04	0.21	-0.16	-0.21	0.37	0.01	-0.02	-0.17	-0.09	0.40	0.19	-0,20	-0,54	0.83			
ic29	0.06	0.06	-0.21	0.25	0.01	-0.26	-0.23	0.38	-0.08	0.07	-0.28	0.14	-0.10	0.10	-0.09	0.23	-0,23	0,16	-0,16	0.84		
ic20	0.14	-0.30	0.27	0.03	-0.20	0.08	0.24	-0.27	-0.03	-0.05	0.12	-0.06	-0.08	0.00	-0.21	-0.35	0,04	-0,10	0,17	-0,27	0.87	
ic25	0.32	-0.19	-0.09	-0.14	-0.24	0.16	0.10	-0.06	0.29	0.01	-0.15	-0.14	-0.15	-0.41	-0.03	0.19	-0,29	-0,27	0,05	-0,28	0,07	0.90

Table 5. A number of factors were created using Eigenvalue

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	12.41	56.42	56.42	12.41	56.42	56.42	6.37	28.94	28.94
2	1.99	9.03	65.45	1.99	9.04	65.45	4.82	21.92	50.86
3	1.03	4.66	70.12	1.03	4.66	70.12	4.24	19.26	70.12
4	0.87	3.97	74.09						
5	0.73	3.30	77.39						
6	0.69	3.13	80.51						
7	0.63	2.85	83.36						
8	0.49	2.23	85.59						
9	0.47	2.12	87.70						
10	0.43	1.97	89.68						
11	0.41	1.85	91.53						
12	0.33	1.49	93.02						
13	0.30	1.37	94.39						
14	0.23	1.08	95.48						
15	0.22	0.98	96.45						
16	0.18	0.82	97.28						
17	0.17	0.75	98.03						
18	0.13	0.58	98.61						
19	0.10	0.46	99.07						
20	0.09	0.41	99.48						
21	0.08	0.34	99.82						
22	0.04	0.18	100.00						

Figure 1. Scree plot

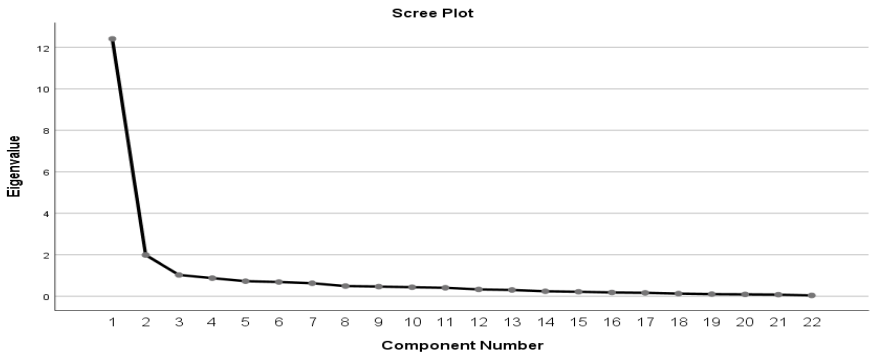


Table 6 provide us with the loading factor for each component. Eight variables are deleted due to lower loading factor (<0.50) and cross-loading. In terms of cross loading, if the loading factor difference between loading to a component and other

components is below 0.02, the variable is deleted (Hair et al., 2014). As shown in Table 5, all variables have a loading factor above 0.50. Table 7 inform the new code and name of each factor. Factor 1 is named "environment, communication, and control action" (ECCA). In addition, factor 2 is called “management style & risk control effectiveness” (MSRCE). Finally, factor 3 is "change management and monitoring" (CMM).

Table 6. Loading factor

Variables	F1	F2	F3
ic1	0.68		
ic2		0.54	
ic3	0.65		
ic5	0.85		
ic6	0.83		
ic7	0.67		
ic9	0.71		
ic11	0.53		
ic15	0.58		
ic16	0.64		
ic17	0.73		
ic18	0.51		
ic19		0.67	
Ic20		0.86	
ic21		0.76	
ic22		0.82	
ic23		0.80	
Ic25			0.65
ic26			0.76
ic27			0.69
ic28			0.79
ic29			0.63

Table 7. Factor labelling

Factor	Variables	Factor's name	New code
Factor 1	ic1, ic3, ic5, ic6, ic7, ic9, ic11, and ic15-18	Environment, communication, & control action	ECCA
Factor 2	ic2, ic19, ic20, ic21-ic23	Management style & risk control effectiveness	MSRCE
Factor 3	ic25-ic29	Change management & monitoring	CMM

Variables included in ECCA is ic1, ic3, ic5, ic6, ic7, ic9, ic11, and ic15-18. At the same time, the variable grouped as MSRCE is Ic2, ic19, ic20, and ic21-ic23. Finally, CMM consists of five observed variables (ic25ic29). To conclude the EFA output, three factors are developed: ECCA, MSRCE and CMM. Based on thirty inputs (observed variable) taken from the COSO framework, there are only twenty-two valid variables, and they are grouped into three factors. Therefore, the COSO framework is not exactly practised in the village government. Thus, according to this analysis, the internal control dimension is not five but only three dimensions. To confirm the EFA output, we also run the confirmatory factor analysis. The subsequent analysis is confirmatory factor analysis (CFA) using second-order SEM-PLS.

3.2 Confirmatory factor analysis (CFA)

The confirmatory factor analysis is applied to confirm the product of explanatory factor analysis. In this case, we use the second-order of smart-pls. The procedure of the smart pls consists of a measurement model. The convergent and discriminant validity is conducted (Hair et al., 2017). The convergent validity involved four statistical properties (outer loading, composite reliability, Cronbach alpha, and average variance extracted). In addition, the discriminant validity adopts the Fornell-Lacker criterion (Fornell & Larcker, 1981) and cross-loading (Henseler, 2010). The first algorithm run produces three observed variables from factor MRSCE (mrsce3, mrsce4, and mrsce5) and two variables from element CMM (cmm4, and cmm5) have the outer loading below 0.70 (Hulland, 1999). Therefore, these variables are not valid and are excluded from the measurement model. The second algorithm procedure is run, and the result of the measurement model can be seen in figure 2. The outer loading for all variables (all factors) supports the convergent validity requirement. In addition, the indicator reliability using Cronbach alpha and composite reliability also indicate that the convergent validity has been achieved (Bagozzi & Yi, 1988). Finally, the average variance extracted (AVE) also show the satisfied value (>0.50), and it, therefore, can conclude that the convergent validity is satisfied (Henseler, 2010).

Table 8. Convergent validity

Factor	CA	rho_A	CR	AVE
Change management and monitoring	0.92	0.92	0.95	0.86
Environment, communication, and control activity	0.94	0.94	0.95	0.64
Management style and risk control effectiveness	0.83	0.83	0.90	0.75

The discriminant validity employed two kinds of test: Fornell-Lacker criterion and cross-loading. As shown in Table 9, the square root of the construct's AVE is greater than its relationship with another construct. For example, the square root of CMM's AVE is 0.93, which is greater than the CMM relationship with ECCA (0.80) and

MSRCE (0.71). Therefore, it can be concluded that discriminant validity is achieved using the Fornell-Lacker criterion (Fornell & Larcker, 1981).

Table 9. Fornell-Lacker criterion

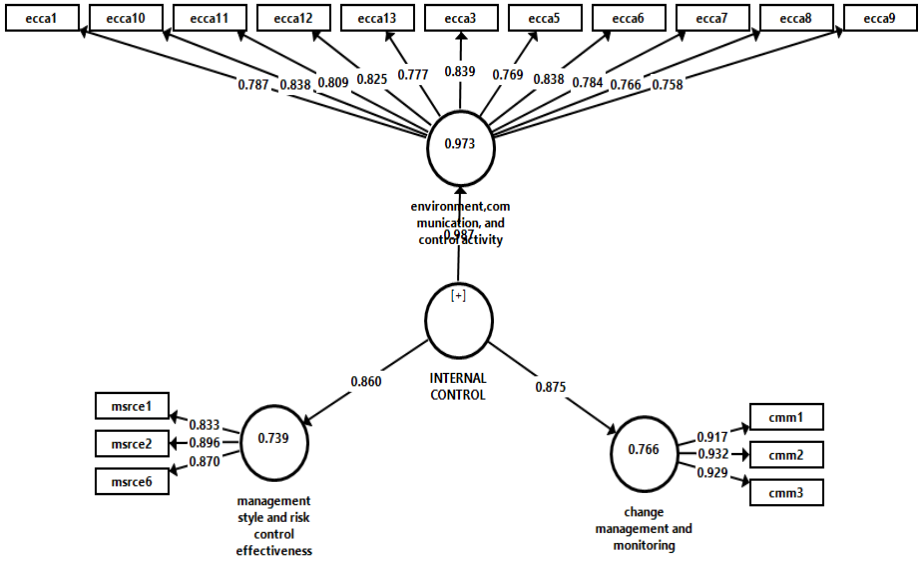
Factor	CMM	ECCA	MSRCE
Change management and monitoring	**0.93**		
Environment, communication, and control activity	0.80	**0.80**	
Management style and risk control effectiveness	0.71	0.79	**0.87**

The second assessment for discriminant validity is cross-loading. This technique shows whether an indicator belongs to a particular construct (Wong, 2013). For example, cmm1, cmm2 and cmm3 are more loaded to CMM than the ECCA and MSRCE (see table 10). Therefore, cmm1-cmm3 belongs to CMM. Thus, cross-loading for all indicators is loaded to their construct, and it can be concluded that discriminant validity is supported.

Table 10. Cross loading

Factor	CMM	ECCA	MSRCE
cmm1	**0.92**	0.74	0.68
cmm2	**0.93**	0.70	0.65
cmm3	**0.93**	0.77	0.64
ecca1	0.66	**0.79**	0.62
ecca10	0.62	**0.82**	0.71
ecca11	0.70	**0.80**	0.66
ecca12	0.67	**0.82**	0.61
ecca13	0.70	**0.77**	0.67
ecca3	0.62	**0.84**	0.61
ecca5	0.63	**0.77**	0.49
ecca6	0.68	**0.83**	0.63
ecca7	0.58	**0.79**	0.74
ecca8	0.65	**0.77**	0.66
ecca9	0.64	**0.77**	0.66
msrce1	0.65	0.72	**0.83**
msrce2	0.59	0.68	**0.90**
msrce6	0.60	0.64	**0.87**

Figure 2. Measurement model



Based on the measurement model assessment, the actual means for construct (internal control: ECCA, MSRCE, and CMM) is demonstrated in figure 2. Thus, the model has a higher original sample mean: 0.987, 0.860, and 0.875. Therefore, the indicators have been confirmed using the SEM-PLS.

3.3 Univariate analysis

The third objective of this study is to investigate any difference of village government internal control from accountability report timeliness (timely vs untimely) and village-based tourism type (village-based tourism vs non-village-based tourism). Before proceeding to the analysis, the normality test must be conducted to select the type of univariate analysis (parametric statistic vs nonparametric statistic). the normality test is run using Kolmogorov-Smirnov. The result shows that Asymp sig for all variables is below 0.05 (see table 11), indicating that all variables are not normal. Therefore, a nonparametric statistic is selected.

The univariate analysis aims to see any difference of village government internal control from timely accountability report (timely reporting vs not timely reporting) and village type (village-based tourism vs non-village-based tourism). The result of internal control practice from timely accountability reports is demonstrated in Tables 12, 13, and 14. Table 12 indicates the independent t-test result using Mann Whitney U for internal control (Factor: environment, communication, and control activity). It suggests that all variables (ECCA) have no difference between timely reporting and non-timely reporting, except for ecca13 (separation of duty) at 5%. It means that the village government with higher separation of duty has timely accountability reports. Separation of duty is the root of internal control in an organization. It refers to a

process where an organisation splits main duties and responsibilities among different staff to minimise the risk of errors, misuse, or fraud (COSO, 2013).

Table 11. Kolmogorov Smirnov test

Statistic property	ecca 1	ecca3	ecca5	ecca6	ecca7	ecca8	ecca9	ecca10	ecca11	ecca12	ecca13	msrce1	msrce2	msrce6	cmm1	cmm2	cmm3
Test Statistic	0,25	0,34	0,30	0,26	0,25	0,25	0,25	0,24	0,27	0,32	0,24	0,27	0,27	0,27	0,27	0,26	0,26
Asymp. Sig. (2-tailed)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 12. Internal control: environment, communication, and control action

ECCA	Reporting Time	Mean	Std. Error Mean	Asymp. Sig (Mann Whitney U)
ecca1	not timely reporting	4.14	0.12	0.34
	timely reporting	4.31	0.26	
ecca3	not timely reporting	4.38	0.12	0.61
	timely reporting	4.46	0.24	
ecca5	not timely reporting	4.40	0.11	0.75
	timely reporting	4.31	0.24	
ecca6	not timely reporting	4.17	0.11	0.57
	timely reporting	4.23	0.26	
ecca7	not timely reporting	4.21	0.11	0.71
	timely reporting	4.23	0.26	
ecca8	not timely reporting	4.00	0.12	0.28
	timely reporting	4.23	0.23	
ecca9	not timely reporting	4.14	0.12	0.21
	timely reporting	4.38	0.24	
ecca10	not timely reporting	4.12	0.11	0.43
	timely reporting	4.23	0.26	
ecca11	not timely reporting	4.29	0.10	0.60
	timely reporting	4.31	0.26	
ecca12	not timely reporting	4.43	0.09	0.37
	timely reporting	4.46	0.27	
ecca13	not timely reporting	4.00	0.11	0.02**
	timely reporting	4.38	0.33	

Notes: ECCA (environment. communication. and control action). and ** indicate sig at 5%

The second internal control factor is management style and risk control effectiveness. Table 13 shows the result of the independent t-test using Mann Whitney U for a timely accountability report. Asymp sig value of Mann Whitney U

indicates that only one variable (msrce2) differs between timely and non-timely accountability reports. Therefore, safeguarding assets (msrce2) make a difference between the village government's timely accountability report and non-timely reporting. Safeguarding asset is another critical aspect of internal control in an organization. Safeguarding assets prepare good warranty regarding precaution or timely observation of unauthorized procuration, use or disposition of the organization's assets that could have material leverage on the financial statements. Therefore, early prevention and detection could differentiate accountability reports.

Table 13. Internal control: management style and risk control effectiveness

MSRCE	Reporting Time	Mean	Std. Error Mean	Asymp. Sig (Mann Whitney U)
msrce1	not timely reporting	4.26	0.11	0.40
	timely reporting	4.38	0.24	
msrce2	not timely reporting	4.12	0.11	0.07*
	timely reporting	4.38	0.31	
msrce6	not timely reporting	4.29	0.14	0.68
	timely reporting	4.31	0.31	

Notes: MSRCE (management style and risk control effectiveness). and * indicate sig at 10%

The third internal control factor is change management & monitoring and whether it makes a significant difference between timely and non-timely accountability reports. We still use the Mann Whitney U test to achieve the result in this test. As seen in Table 14, only one variable (smm1) has a significant difference between timely and non-timely accountability reports. Managing risk during change is a very important aspect of internal control. Risk management ensures that the organization's operations are effective, that financial and other information is reliable, and that the organization complies with the relevant regulations and operating principles. To achieve this objective, it probably changes the system or structure. Thus, any change in system and structure of internal control need to manage this change.

Table 14. Internal control: change management and monitoring

CMM	Reporting Time	Mean	Std. Error Mean	Asymp. Sig (Mann Whitney U)
cmm1	not timely reporting	4.26	0.11	0.10*
	timely reporting	4.46	0.31	
cmm2	not timely reporting	4.17	0.11	0.20
	timely reporting	4.31	0.31	
cmm3	not timely reporting	4.07	0.12	0.38
	timely reporting	4.15	0.34	

Notes: CMM (Change management and monitoring). and * indicate sig at 10%

The second part of the univariate analysis is to see any difference of internal control from three factors between village-based tourism and non-village-based tourism. From the environment, communication, and control action (ECCA), there is no significant difference between village-based tourism and non-village-based tourism.

Table 15. Internal control: environment, communication, and control action

	Village type	Mean	Std. Error Mean	Asymp. Sig (Mann Whitney U)
ecca1	village based tourism	4.13	0.23	0.82
	Non-Village based tourism	4.16	0.12	
ecca3	village based tourism	4.50	0.19	0.97
	Non-Village based tourism	4.40	0.12	
ecca5	village based tourism	4.38	0.18	0.63
	Non-Village based tourism	4.40	0.12	
ecca6	village based tourism	4.25	0.16	0.95
	Non-Village based tourism	4.18	0.12	
ecca7	village based tourism	4.38	0.18	0.74
	Non-Village based tourism	4.20	0.12	
ecca8	village based tourism	3.75	0.25	0.21
	Non-Village based tourism	4.11	0.12	
ecca9	village based tourism	4.13	0.30	0.86
	Non-Village based tourism	4.18	0.12	
ecca10	village based tourism	4.13	0.23	0.82
	Non-Village based tourism	4.16	0.12	
ecca11	village based tourism	4.38	0.18	0.91
	Non-Village based tourism	4.27	0.12	
ecca12	village based tourism	4.50	0.19	0.89
	Non-Village based tourism	4.40	0.11	
ecca13	village based tourism	4.00	0.27	0.74
	Non-Village based tourism	4.07	0.13	

The second factor of internal control is management style and risk control effectiveness. The Mann Whitney U test result is depicted in table 16 below. Asymp sig value of Mann Whitney test shows no significant difference between village-based tourism and non-village-based tourism.

Table 16. Internal control: management style and risk control effectiveness

	Village type	Mean	Std. Error Mean	Asymp. Sig (Mann Whitney U)
msrce1	village based tourism	4.50	0.19	0.44
	Non-Village based tourism	4.22	0.11	
msrce2	village based tourism	4.38	0.18	0.63
	Non-Village based tourism	4.13	0.13	
msrce6	village based tourism	4.25	0.16	0.43
	Non-Village based tourism	4.29	0.15	

The last internal control factor is change management and monitoring (CMM). The Mann Whitney U test results indicate no significant difference in internal control (CMM) between village-based tourism and non-village-based tourism (see table 17). To conclude, internal control which has been developed into three factors does not differ between village-based tourism and not village-based tourism.

Table 17. Internal control: change management and monitoring

	Village type	Mean	Std. Error Mean	Asymp. Sig (Mann Whitney U)
cmm1	village based tourism	4.25	0.25	0.76
	Non-Village based tourism	4.29	0.13	
cmm2	village based tourism	3.88	0.23	0.18
	Non-Village based tourism	4.22	0.12	
cmm3	village based tourism	3.75	0.16	0.12
	Non-Village based tourism	4.13	0.14	

Conclusions

Study on the practice of internal control in a company has been much investigated. Lack of attention has been given to the public sector, especially village government. Most studies using public sector organizations describe the practice of internal control. None of the studies developed the internal control concept into several factors using village government in Indonesia. Therefore, this study developed the concept of internal control in the literature into several factors using village government data. This study concludes that twenty-one valid variables are grouped into three factors: ACCA, MSRCE, and CMM. Based on the confirmatory factor analysis using second-order smart pls, three variables are excluded from MSRCE, and two variables dropped from CMM. Separation of duties (ecca3), safeguarding assets (msrce2), and managing risk during change is significantly different between timely and non-timely reporting.

This study theoretically implies that internal control from the company and public sector is slightly different. In the context of village government (one of the public sector organisations), five dimensions of internal control exists in the literature successfully grouped only into three dimensions rather than five. Therefore, timely accountability reports depend on the separation of duties, safeguarding assets, and managing risk during change. Practically, the village government can improve these three variables to timely accountability reporting. Further, this study has limitations and provides a venue for future investigation. First, this study uses fifty-three village governments, which is considered a small sample. Therefore, the next investigation can widen the number of samples into village governments from several cities or district governments in Indonesia. Finally, this study relies on limited observed variables and future investigation can add more variables from extensive literature review on internal control studies.

Conflict of interest

No conflict of interest

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