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Research Article

The Role of Government Internal Supervisory Apparatus (APIP) and Government Internal Control System (SPIP) in Achieving Sustainable Development Goals (SDGs) in Indonesia

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Abstract.
One of the Sustainable Development Agenda for 2030 is to end poverty by all means possible. This study aims to analyze the role of the capabilities of the Government Internal Supervisory Apparatus (APIP) in the effectiveness of the Government Internal Control System (SPIP) and the extent of its influence on the achievement of the Sustainable Development Goals (SDGs) in Indonesia. This study uses data from 508 District/City Governments in Indonesia with a final sample of 2005 observations. The results indicate that APIP capabilities have contributed to the effectiveness of SPIP. In addition, it was found that the capabilities of APIP and SPIP play a role in reducing poverty levels in Districts/Cities in Indonesia, thus potentially increasing the achievement of the SDGs. Meanwhile, SPIP in this study did not mediate the effect of APIP capabilities on the achievement of the SDGs. The implications of this study are closely related to transformation efforts to achieve the SDGs, in relation to poverty alleviation in the regions. Therefore, as a strategy for achieving the SDGs and simultaneously reducing poverty rates in the regions, the District/City Governments need to establish supporting policies to ensure the implementation of programs that enhance APIP capabilities and the effectiveness of SPIP administration.

Keywords: APIP, SPIP, SDGs, poverty, local government

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1. Introduction

Overcoming poverty is a crucial goal in sustainable development and is often the focus of various programs and policies of governments and international organizations to improve community welfare and reduce inequality. To support the achievement of these goals, the Regional Government must improve management and supervision. In this regard, research has developed that analyzes the role of the capabilities of the Government Internal Monitoring Apparatus (APIP) on the effectiveness of the Government

Internal Control System (SPIP) and how much influence it has on achieving Sustainable Development Goals (SDGs) in Indonesia.

Since September 25^{th}, 2015 through the UN session 190 countries including Indonesia have agreed on the SDGs. The agreement contains new development that encourages change toward sustainable development grounded in human rights and equality, aiming to foster progress in social, economic, environmental, and legal aspects of development and governance. The universal principle applied to the SDGs ensures that "No One Left Behind". SDGs consist of 17 goals, 169 targets and 319 indicators are employed to persist in endeavors aimed at accomplishing the Millennium Development Goals (MDGs) [1]. To increase understanding of the specific national contexts in which global goals are expected to produce political change, to explain the potential and limitations of global goal-setting initiatives, then it's no longer the MDGs that become a focus of interest [2].

Poverty extends beyond a mere absence of financial resources, it manifests as a complex entanglement encompassing poor health, limited or absent education, and a deficiency in political influence [3]. Special attention is needed to address poverty reduction, which may be the main obstacle to achieving the SDGs [4]. Lower-income countries, extreme poverty primarily affects rural populations and is exacerbated by climate conditions and conflict [5]. The positive outcomes of village development and the accomplishment of SDGs in rural areas of Indonesia are attributed to the financial incentives offered through village funds by the government of Indonesia [6]. SDGs are used to show the ethical consequences of an action which may affect corporate stakeholders and the planet and the only variables that are significant to achieving the SDGs are objective assurance and risk management [7].

Meanwhile, the better the role of government internal audit, the reduced corruption level in a province [8]. According to Kahar et al. [9], it is necessary to optimize budget use and carry out good and correct audit stages to improve regional government performance. In order to achieve the SDGs, professional accountants are needed to integrate sustainable development indicators into daily practice [10]. According to Makarenko and Plastun [10], in achieving the SDGs, the contributions of professional accountants are most relevant in goals that emphasize economic growth, sustainable development, and financial accountability. Apart from that, there is no notable correlation in the midst of the environment of internal control and the sustainable development designed to mitigate fraud [11]. APIP capabilities can improve linkages between SPIP and SAKIP [12]. The Inspectorate plays a role in leadership, internal supervision, consulting, and quality assurance in executing SPIP in the City of Surakarta [13].

Implementing SPIP will make it easier to achieve the goals of government organizations because SPIP ensures that civil servants carry out their duties by established operational standards [12]. Besides that, the government should focus on planning at the top level of the national government related to efforts to reduce poverty, such as formulating a strategic poverty reduction plan [14]. Diverting government budgets to the education sector has a major impact on economic growth and is the best alternative for reducing poverty levels [15].

Several previous studies were conducted by Yusup and Rahadian [16] and Martínez-Ferrero and García-Meca [17] however, until now this research is still limited to analyzing the extent to which APIP and SPIP influence government governance. As for Ningsih et al. [18] analyzing internal control's impact on corruption which can reduce poverty rates. So, this research wants to specifically analyze how the government plays a role in managing and supervising government implementation which will have an impact on poverty alleviation in Indonesia.

Based on the data used and the results of the analysis, several findings in the research are: First, APIP has a positive impact on SPIP, and the results of this research contribute to research conducted by Yusup and Rahadian [16] where APIP and SPIP influence improving government governance. So, the novelty in this research lies in analyzing APIP which has adopted a new paradigm as a quality guarantee, internal consultant and catalyst in improving superior service quality, which is characterized by sure, easy, fast and transparent services, as well as creating professional, effective, efficient, accountable, clean, and free from corruption by implementing the effectiveness of SPIP.

Second, APIP has a negative impact on achieving the SDGs, the results of this research contribute to research conducted by Martínez-Ferrero and García-Meca [17] which analyzes internal governance as having a positive influence on sustainable development. There are different variables and research results analyzed, so the novelty in this research is using the APIP variable in analyzing the achievement of the SDGs and it was found that APIP has a negative influence.

Third, SPIP has a negative impact on achieving the SDGs, the results of this research contribute to research conducted by Ningsih et al. [18] which examines measures to prevent fraud in the process of acquiring goods and services through SPIP maturity which is indicated to cause corruption and influence an increase in poverty rates, so the novelty in this research is to analyze in depth the level of poverty as a goal of sustainable development. Therefore, APIP and SPIP can help create the foundations

and infrastructure needed to reduce poverty through improved local government management and supervision and better stewardship of resources. In addition, the results of this research can contribute to achieving the first SDG by helping people achieve higher incomes and ending poverty in all its forms.

2. Materials and Methods

2.1. Stakeholder theory

Stakeholder theory gives precedence to fulfilling the interests of groups and individuals recognized as stakeholders as the fundamental goal of an organization [19]. Organizations have various groups that act as stakeholders in their activities, and the success of the organization often depends on interactions with these stakeholder groups [20].

2.2. Sustainable development theory

Sustainable Development Theory emerged in the 1980s, focusing on coordinated development that encompasses economic, social, and environmental aspects. Since then, Sustainable Development theory has become an important component of government and business agendas [21]. For economically advanced countries, sustainable development has the potential to bring about the emergence of a new pattern of international relations based on common interests and humanity. Sustainable development at least provides general guidance for newly developing countries and seeks to accelerate their development [22].

2.3. Sustainability development goals (SDGs)

2015 represented the termination of the MDGs. SDGs program that will be implemented from 2015 to 2030 must be designed to resolve the difficulties and goals left behind by the MDGs [23]. There are five guiding concepts in Presidential Regulation No. 59 of 2017 for the execution of efforts to accomplish the SDGs: people, planet, prosperity, peace, and collaboration [24]. The following 17 global goals were then created. This research used SDG 1 namely ending poverty which is SDG 1 aims to ensure that every individual, especially those in vulnerable conditions, has fair access to economic resources, basic services, and social safety nets. The main concept applied by SDG 1 is to create a world

where no one is marginalized or left behind; instead, every person, regardless of their circumstances, is given the opportunity to lead a life free from the shackles of poverty.

2.4. The impact of APIP on SPIP

The significance of internal audit in the economy cannot be overstated. Internal audit plays a crucial role and offers distinct advantages over external audit, particularly in terms of obtaining information swiftly and identifying issues in their early stages [25]. Internal auditors have the responsibility to carry out internal supervision of the functions and responsibilities of government agencies are to ensure the attainment of state financial accountability, known as the Government Internal Supervisory Apparatus (APIP). In this case, APIP in Regional Government which is usually referred to as “Regional Inspectorate” has a function includes supervising the implementation of follow-up actions to BPK audit recommendations [26]. The control environment in regional government is influenced by the leadership of the head of Regional Government, which is characterized by an appropriate and transparent officer rotation policy. The establishment of a positive and conducive control environment makes a significant contribution to the success of SPIP implementation in local governments [27]. Yusup and Rahadian [16] in their research show that it is important to evaluate improving APIP capabilities, considering the significant impact it has in increasing the effectiveness of SPIP, which of course will have an impact on achieving good governance. When good governance is marked by the improvement of the government system and the apparatus that runs the system. Therefore, it is suspected that the role of APIP can influence the effectiveness of SPIP. The hypothesis can be described as follows:

H1. The Role of APIP Positively Impacts The Effectiveness of SPIP

2.5. The impact of APIP on achieving the SDGs

There exists a direct and positive correlation in the midst of the efficacy of internal audits and the sustainable development of the company [28]. The topic explores the connection between the control of internal part and collaborative efforts to have monitor activities, emphasizing control over the control environment to combat fraud, and fostering responsibility through a culture of control. It also brings attention to COSO, the 16 Sustainable Development Goals (SDGs), monitoring procedures, and the broader consequences of fraud in the context of SDGs [11]. The more robust the internal corporate governance, the higher the likelihood of incorporating SDGs into sustainability reports.

According to Sari et al. [29], Indonesia's governance system requires enhancement to attain the SDGs. Therefore, Martínez-Ferrero and García-Meca [17] can conclude that the mechanisms of internal corporate governance make a positive contribution to sustainable development and the achievement of the 2030 Agendas. Therefore, it can be concluded that the role of APIP contributes to the achievement of the SDGs, particularly in reducing the percentage of poverty. The hypothesis can be described as follows:

H2. The Role of APIP Negatively Impacts The Achievement of SDGs

2.6. The impact of SPIP on achieving the SDGs

The execution of the five essential elements of SPIP about the management of enviroment and activities, the information and communication, risk assessment, and monitoring ensures a reasonable assurance of achieving the effectiveness of government administration objectives and also the efficiency of it, the reliability of financial reports, safeguarding state assets, and compliance with legislation [30]. Related to research Ningsih et al. [18] found that in the acquirement of goods and services, SPIP does not play a role in preventing fraud. According to Indonesian Corruption Eradication Commission (KPK), the impact of corruption involves hampering the economic growth of the country, reducing investment levels, increasing poverty rates, and increasing income inequality. Therefore, it can be concluded that SPIP has an impact on the SDGs on the first goal of ending poverty. The hypothesis can be described as follows:

H3. The Effectiveness of SPIP Negatively Impacts The Achievement of SDGs

3. Methodology

3.1. Data

This research uses data from 514 regional governments in Indonesia consisting of District/City Governments in 2018-2021. However, there are 27 districts/cities that do not have data on achieving the first SDGs, so the total final sample is 508 observations because this research was conducted for four years so that 2005 observations were obtained. All of the data used in this research comes from Indonesian Government Agencies, namely from BPKP in the Performance Report for APIP capability and SPIP maturity data. Meanwhile, data regarding the first SDGs is accessed via the SDGs

dashboard on the official Bappenas website, https://sdgs.bappenas.go.id/dashboard/ [1]. General description of the research sample can be seen in Table 1.

TABLE 1: General description of the research sample.

Information	Sample									
	2018	%	2019	%	2020	%	2021	%	Amount	Percent (%)
Panel A ``Determining Sample Number of Districts/Cities''										
Number of Districts/Cities	508	100	508	100	508	100	508	100	2032	100
Administrative Districts/City	6	1.18	6	1.18	6	1.18	6	1.18	24	1.18
Has No Data	(16)	3.14	(5)	1	(3)	0.59	(3)	0.59	(27)	1.33
Final Sample Number/Year	**492**	**96.85**	**503**	**99.01**	**505**	**99.41**	**505**	**99.41**	**2005**	**98.67**
Panel B ``Sample Descriptive''										
District	399	81.10	410	81.51	412	81.58	412	81.58	1633	81.45
City	93	18.90	93	18.49	93	18.42	93	18.42	372	18.55
Amount	**492**	**100**	**503**	**100**	**505**	**100**	**505**	**100**	**2005**	**100**
Based on the Geographical Location of the Regional Government										
Java Island	113	22.97	112	22.27	113	22.38	113	22.38	451	22.49
Outside of Java Island	379	77.03	391	77.73	392	77.62	392	77.62	1554	77.51
Amount	**492**	**100**	**503**	**100**	**505**	**100**	**505**	**100**	**2005**	**100**
Sample Size 2018-2021									**2005**	**100**

Source: Processed by researchers (2023)

3.2. Empirical model and operationalization of variables

To response the research problems as well as testing hypotheses, the model of empirical in this research is as follows:

$$SDGSAit = \beta 0 + \beta 1SPIPit + \beta 2APIPit + \beta 3LNZit + \beta 5AGESit + \beta 7ISLANDit + \beta 8MUNit + \epsilon it \quad \text{(i)}$$

$$SPIPit = \alpha 0 + \alpha 1APIPitt + \alpha 2SIZEit + \alpha 4AGESit + \alpha 6ISLANDit + \alpha 7MUNit + \epsilon it \quad \text{(ii)}$$

The main variables in this research are SDGSA$_t$, SPIP$_t$ and APIP$_t$ (Table 2). SDGSA$_{it}$ is a variable for achieving SDG 1 in indicator 1.2.1 which is measured by the population of human living under the national poverty line based on percentage.

SPIP$_{it}$ is the SPIP maturity variable which is measured using levels 0-5. Level 0 states that the government internally does not yet have a policy to implement internal

control practices, then level 1 states that there are internal control practices, but the risk approach and control have not been well organized so that weaknesses cannot be identified, then level 2 states that the government internally has implement internal control practices, but they are not well documented and their implementation is still very dependent on individuals and does not involve a single organizational unit and there is no evaluation regarding the effectiveness of controls so there are still many weaknesses that cannot be addressed, level 3 states that the government internally has implemented internal control practices and well documented, but the evaluation has not been adequately documented, then level 4 states that internal control has been effectively implemented, including evaluation and documentation, and finally it affirms that government internal control has been implemented sustainable, integrated internal control practices and has been supported by monitoring automatically via a computer application. The higher maturity value indicates that the SPIP implementation is getting better [31].

$APIP_{it}$ is an APIP capability variable which is measured using levels 1-5. Level 1 states that there are no fixed practices and still depends on individual performance, then level 2 states that the audit process is carried out regularly and has been supported by adequate HR competency qualifications, then level 3 states that APIP has carried out supervisory activities by standards and the APIP monitoring results' quality has instilled confidence in compliance, economy, efficiency, and effectiveness. It can also offer early warnings, enhance the effeiciency of the management in the risk part, and uphold and enhance organizational governance quality. At this level, APIP has been declared effective because APIP has provided consultancy services and performance audits for priority programs. Furthermore, level 4 states that APIP has become a strategic partner of the organization and can support the attainment of organizational goals through the results of its supervision related to governance, risk management and control. Lastly, namely level 5 states that APIP has practised optimally where APIP has provided confidence in achieving organizational goals [32].

$SIZE_{it}$, $AGES_{it}$, $ISLAND_{it}$ and MUN_{it} are the control variables of this study. The function of the control variable in this research serves to strengthen the existing hypotheses so that the measurements are reliable and consistent. It helps identify factors that may influence research outcomes so that they can be addressed.

Table 2: Operationalization of variables and data sources.

Name	Variable Operationalization	Data source
SDGSA$_{it}$	Percentage of the population living below the national poverty line, according to gender and age group.	National Development Planning Agency (BAPPENAS).
SPIP$_{it}$	SPIP maturity	State Development Audit Agency (BPKP).
APIP$_{it}$	APIP capabilities	State Development Audit Agency (BPKP).
SIZE$_{it}$	Regional Government size in 2018-2021, measured by the natural logarithm (Ln) of total Regional Government assets.	Indonesian Audit Board (BPK).
AGES$_{it}$	Regional government age in 2018-2021, measured by the number of years since the formation of the regional government until 2021.	Ministry of Internal Affairs.
ISLAND$_{it}$	The geographical location of the Regional Government, measured by dummy islands, namely “1” is Java Island, and “0” is the other.	Ministry of Internal Affairs.
MUN$_{it}$	Regional Government Status, measured by a dummy of Regional Government status, namely “1” City Government, “0” others.	Ministry of Internal Affairs.

Source: Processed by researchers (2023)

4. Results and Discussion

4.1. Descriptive statistics

The comprehensive statistical descriptive overview of the variables are displayed in Table 3. Table 3 depicts for all variables in this research by using descriptive statistics. SDGA$_{it}$ variable has mean about 12.27, which means that the population that living under the national poverty line is quite low in 2018-2021. Meanwhile, variable SPIP$_{t}$ has an average of 2.50, which means that the average maturity level of the District/City Local Government is at level 2 to 3, which means that the internal government has implemented internal control practices, but it is not documented as well for level 2 and has been documented properly good for level 3. Likewise, the APIP$_{it}$ variable has an average of 2.35, which means that the average APIP capability of District/City Local Governments is at level 2, namely that the audit process is carried out regularly and has been supported by adequate human resource competency qualifications.

In contrast to that, the mean of SIZE$_{it}$ variable about 3,750.35, this means around 3.7 trillion rupiah of assets belongings to the average sample. Meanwhile, the AGE$_{it}$ variable has an average of 43.78, which indicates that the average age of the government sample was determined prior to the implementation of government reform in Indonesia,

specifically in 1998. Meanwhile, the $ISLAND_{it}$ variable and the MUN_{it} variable each have an average of 0.22. and 0.18, it can be interpreted that the sample average used in this research is the Local Government situated beyond Java with District status.

Table 3: Statistical description of variables.

Information	Mean	Standard Deviation	Min	Max
$SDGSA_{it}$	12.27	7.43	2.38	41.66
$SPIP_{it}$	2.50	0.62	1	3
$APIP_{it}$	2.35	0.58	1	3
$SIZE_{it}$*)	3,750.35	4,483.61	793.32	47.023.94
$AGES_{it}$	43.78	24.16	7	71
$ISLAND_{it}$	0.22	0.41	0	1
MUN_{it}	0.18	0.38	0	1

Number of Observations = 2,005. Explanation of variable operationalization in Table 2. *) In billions of rupiah

Source: Secondary data, STATA-14.2 output (Processed, 2023).

Afterwards, the correlation analysis results for each variable are displayed in Table 4. Table 4 illustrates the primary variables in this study, such as $SDGSA_{it}$, $SPIP_{it}$, and $APIP_{it}$ variables, correlate with each other. By what was predicted in the previous section, $APIP_{it}$ capability positively has a correlation with $SPIP_{it}$ maturity and negatively with $SDGSA_{it}$, while the $SPIP_{it}$ maturity variable has a negative correlation with $SDGSA_{it}$, and it was also found that $SPIP_{it}$ maturity does not act as a mediator. This indicates that SDGSA not only correlates with APIP capability and SPIP maturity but also correlates with the size, age, location of the geographic and local governments's status.

4.2. Hypothesis test

Table 5 column (3) indicates that variable $APIP_{it}$ effect $SPIP_{it}$ positively about 0.395, which means it is supports H1, which means that increasing $APIP_{it}$ capability can have a positive effect on $SPIP_{it}$ maturity. To test H2, table 5 column (4) indicates that the $APIP_{it}$ variable negatively effects the $SDGSA_{it}$ variable in the coefficient of -1.013, so it can be said that H2 supported, which means that every time there is an increase of 1 the $APIP_{it}$ level will cause a decrease in $SDGSA_{it}$ of 50.65.

Table 5 column (4) indicates that variable $SPIP_{it}$ effect $SDGSA_{it}$ negatively about -4.079 for the coeficient. These results indicate that the H3 supported, which means that increasing $SPIP_{it}$ maturity can have a negative effect on $SDGSA_{it}$ achievement.

TABLE 4: Variable correlation analysis.

Variable	$SDGSA_{it}$	$SPIP_{it}$	$APIP_{it}$	$AGES_{it}$	MUN_{it}	$ISLAND_{it}$	$SIZE_{it}$
$SDGSA_{it}$	1,000						
$SPIP_{it}$	-0.454*** (0.000)	1,000					
$APIP_{it}$	-0.302*** (0.000)	0.436*** (0.000)	1,000				
$AGES_{it}$	-0.235*** (0.000)	0.336*** (0.000)	0.183*** (0.000)	1,000			
MUN_{it}	-0.306*** (0.000)	0.141*** (0.001)	0.168*** (0.000)	0.027 (0.542)	1,000		
$ISLAND_{it}$	-0.125*** (0.004)	0.260*** (0.000)	0.051 (0.247)	0.472*** (0.000)	0.100** (0.024)	1,000	
$SIZE_{it}$	-0.266*** (0.000)	0.301*** (0.000)	0.192*** (0.000)	0.395*** (0.000)	0.188*** (0.000)	0.451*** (0.000)	1,000

Number of Observations = 2,005. Explanation of variable operationalization in Table 2. ***, **, * = significant P-value 1%, 5%, 10%.

Source: Secondary data, STATA-14.2 output (Processed, 2023).

Meanwhile, the $SPIP_{it}$ variable cannot mediate between the $SDGSA_{it}$ and $APIP_{it}$ variables.

Regarding the role of control variables in the framework of this research, based on individual model tests in Table 5 column (3), it provides a clearer picture that the variables that have a significant effect on the $SPIP_{it}$ variable are $SIZE_{it}$ about 0.105 which has a positive effect with significance at the 5% level and $AGES_{it}$ with a coefficient of 0.004 which has positively effect at a significance of 1%, apart from that $ISLAND_{it}$ with a coefficient of 0.161 which has a positive effect with a significance at the 5% level. Meanwhile, there is no significant effect between the MUN_{it} and the $SPIP_{it}$ variable. The results of this research show that apart from APIP capability, there are also other variables such as the size and age of the area, as well as geographic location also contribute to achieving SDG 1, namely no poverty.

Meanwhile, the individual model testing in Table 5 column (4) show that the control variable that has a significant effect on the $SDGSA_{it}$ variable is $SIZE_{it}$ variable about -1.237 which negatively effect with a significance at the 5% level, then $AGES_{t}$ with a coefficient of -0.030 which negatively effect at a significance of 5% and besides that variables $ISLAND_{it}$ with a coefficient of 1.491 which has a significant positive effect at the 5% level and the variable that has a negative effect with a significance of 1% is MUN_{it}. The results of this research show that apart from APIP capability, other variables such as the size and age of the region, geographical location and regional government status also contribute to achieving SDG 1, namely no poverty. Apart from that, based on the

results of the full model test in Table 5 columns (5) and (6), show that the $SPIP_t$ variable is not a mediating variable in the role of APIP in achieving the first SDGs.

Table 5: Hypothesis testing results.

Variable	Expected Sign	Individual Model Test		Full Model Test	
		$SPIP_{it}$	$SDGSA_{it}$	$SPIP_{it}$	$SDGSA_{it}$
1	2	3	4	5	6
_CONS		-1,706	62,163	-1,706	62,163
		(0.177)	(0.000)	(0.177)	
$SPIP_{it}$	(-)		-4,079***		-4,079
			(0.000)		(0.641)
$APIP_{it}$	(+/-)	0.395***	-1,013**	0.395***	-1,013*
		(0.000)	(0.060)	(0.000)	(0.774)
$SIZE_{it}$	(+/-)	0.105**	-1,237**	0.105**	-1,237***
		(0.019)	(0.022)	(0.019)	(0.002)
$AGES_{it}$	(+/-)	0.004***	-0.030**	0.004***	-0.030
		(0.000)	(0.031)	(0.000)	(0.500)
$ISLAND_{it}$	(+/-)	0.161**	1,491**	0.161***	1,491
		(0.018)	(0.068)	(0.018)	(0.417)
MUN_{it}	(+/-)	0.714	-4,421***	0.071	-4,421***
		(0.254)	(0.000)	(0.254)	(0.000)
Prob > chi2 / Prob > F		0,000	0,000	0,000	
Pseudo R2 / Adj R-squared		0.287	0.291		

Number of Observations = 2,005. Explanation of variable operationalization in Table 2. ***, **, * = significant P-value 1%, 5%, 10%.

Source: Secondary data, STATA-14.2 output (Processed, 2023).

APIP plays a critical role in ensuring the integrity and effectiveness of government operations. Their main task is to monitor and evaluate the implementation of policies and management at all levels of government to ensure compliance with applicable regulations. APIP also plays a key role in preventing and also detecting fraud and corruption, increasing accountability and transparency, and ensuring responsible management of government finances and assets through the audits and evaluations they carry out. APIP provides recommendations for system improvements and performance monitoring and ensures that government institutions work efficiently and effectively. APIP also ensures compliance with public service standards and legislation, while providing consultation and assistance in the implementation of internal controls and risk management [33]. Therefore, APIP must demonstrate a high level of professionalism in order to carry

out its responsibilities effectively and ensure that organizational goals are achieved appropriately.

SPIP is a framework intended to offer sufficient assurances concerning the attainment of operational efficiency and effectiveness, the reliability of financial reporting, and compliance with applicable laws and regulations. SPIP is built on the basis of five main components, covers everything from information control to supervision [30]. Therefore, SPIP has a crucial role in ensuring that government resource management is carried out in an efficient, effective and economical manner.

In relation to the applied theory, stakeholder theory emphasizes the importance of involving all interested parties in the success of an entity or project, especially in efforts to achieve the SDGs. These stakeholders can include the government, business sector, civil society, international organizations, and the general public. The essence of this theory is that for success or sustainable goals to be achieved, an organization or entity must consider the interests and impact of all stakeholders, not just focusing on shareholders or investors. In the context of sustainable development, this means that decisions and actions must consider the impact and interests of various parties, including the government, business sector, civil society, and international organizations. The relationship between stakeholder theory and sustainable development lies in the recognition that success in achieving the SDGs requires the involvement and contemplation of diverse stakeholders, where the role of APIP and the effectiveness of SPIP are key in overseeing and ensuring the achievement of SDGs.

According to the discussion above, it can be come to an end that in general, this study has empirically proven the existence of a correlation between APIP, SPIP, and the first goal of the SDGs, as stated by Yusup and Rahadian [16]; Martínez-Ferrero and García-Meca [17]; Ningsih et al. [18].

4.3. Additional testing: Achievement of each indicator of SDGs goal 1

Based on the first goal of ending poverty which has been agreed upon by 190 countries in the SDGs, including Indonesia, there are 13 indicators for achieving goal one in the SDGs. However, the data available within the District/City scope is only 5 indicators. Therefore, as an additional test of the research model and to provide a more detailed picture regarding the role of APIP and SPIP in achieving SDG 1 on other indicators. Table 6 shows the results of hypothesis testing using measurements of achievement for each indicator of SDG 1. It can be deduced that the function of APIP on SPIP has a positive

influence as in the results of hypothesis testing in Table 5, but the opposite is true in achieving SDG 1 on indicators other than those tested in Table 5.

TABLE 6: Additional test results for achievement of each indicator of SDGs goal 1.

Panel A. Percentage of the population or households with access to essential services: (1) access to drinking water services ($SDGSAB_{it}$)					
Variable	**Expected Sign**	**Individual Model Test**		**Full Model Test**	
		$SPIP_{it}$	**$SDGSAB_{it}$**	**$SPIP_{it}$**	**$SDGSAB_{it}$**
1	**2**	**3**	**4**	**5**	**6**
_CONS		0.067 (0.927)	218,404 (0.000)	0.067 (0.927)	218,404 (0.108)
$SPIP_{it}$	(+)	-	0.371 (0.506)	-	0.371 (1,000)
$APIP_{it}$	(+)	0.247*** (0.000)	1,135** (0.079)	0.247*** (0.000)	1,135 (0.998)
$SIZE_{it}$	(+/-)	0.056** (0.032)	-6,532*** (0.000)	0.056** (0.032)	-6,532 (0.954)
$AGES_{it}$	(+/-)	0.003*** (0.000)	0.100*** (0.000)	0.003*** (0.000)	0.100 (0.989)
$ISLAND_{it}$	(+/-)	0.259*** (0.000)	14,553*** (0.000)	0.259*** (0.000)	14,553 (0.977)
MUN_{it}	(+/-)	0.001 (0.963)	-5,648*** (0.000)	0.001 (0.963)	-5,648 (0.119)
Prob > chi2 / Prob > F		0,000	0,000	0,000	
Pseudo R2 / Adj R-squared		0.130	0.169		
Panel B. Proportion of population/households with access to basic services: (2) access to basic sanitation services ($SDGSAC_{it}$)					
Variable	**Expected Sign**	**Individual Model Test**		**Full Model Test**	
		$SPIP_{it}$	**$SDGSAC_{it}$**	**$SPIP_{it}$**	**$SDGSAC_{it}$**
1	**2**	**3**	**4**	**5**	**6**
_CONS		0.380 (0.606)	-33,805 (0.050)	0.380 (0.606)	-33,805 (0.960)
$SPIP_{it}$	(+)	-	0.282 (0.593)	-	0.282 (1,000)
$APIP_{it}$	(+)	0.250*** (0.000)	4,192*** (0.000)	0.250*** (0.000)	4,192 (0.992)
$SIZE_{it}$	(+/-)	0.046** (0.080)	3,309*** (0.000)	0.046** (0.080)	3,309 (0.968)
$AGES_{it}$	(+/-)	0.003*** (0.000)	0.077*** (0.000)	0.003*** (0.000)	0.077 (0.989)
$ISLAND_{it}$	(+/-)	0.266*** (0.000)	-1,423 (0.142)	0.266*** (0.000)	-1,423 (0.998)
MUN_{it}	(+/-)	0.002 (0.941)	10,865*** (0.000)	0.002 (0.941)	10,865** (0.030)
Prob > chi2 / Prob > F		0,000	0,000	0,000	
Pseudo R2 / Adj R-squared		0.127	0.157		

Table 6: Additional test results for achievement of each indicator of SDGs goal 1.

Panel C. Proportion of population/households with access to basic services: (3) access to basic health facilities ($SDGSAD_{it}$)					
Variable	**Expected Sign**	**Individual Model Test**		**Full Model Test**	
		$SPIP_{it}$	**$SDGSAD_{it}$**	**$SPIP_{it}$**	**$SDGSAD_{it}$**
1	**2**	**3**	**4**	**5**	**6**
_CONS		0.290 (0.694)	88,904 (0.000)	0.290 (0.693)	88,904 (0.878)
$SPIP_{it}$	(+)	-	1,927*** (0.000)	-	1,927 (0.999)
$APIP_{it}$	(+)	0.249*** (0.000)	2,126*** (0.000)	0.249*** (0.000)	2,126 (0.997)
$SIZE_{it}$	(+/-)	0.049** (0.063)	-0.863 (0.130)	0.049** (0.062)	-0.863 (0.993)
$AGES_{it}$	(+/-)	0.003*** (0.000)	0.040*** (0.008)	0.003*** (0.000)	0.040* (0.995)
$ISLAND_{it}$	(+/-)	0.261*** (0.000)	2,831*** (0.002)	0.261*** (0.000)	2,831 (0.996)
MUN_{it}	(+/-)	0.003 (0.918)	9,003*** (0.000)	0.003 (0.918)	9,003 (0.246)
Prob > chi2 / Prob > F		0,000	0,000	0,000	
Pseudo R2 / Adj R-squared		0.127	0.102		
Panel D. Percentage of the adult population with legal documents for land rights, categorized by gender and type of ownership: (1) Proportion of households with owned houses ($SDGSAE_{it}$)					
Variable	**Expected Sign**	**Individual Model Test**		**Full Model Test**	
		$SPIP_{it}$	**$SDGSAE_{it}$**	**$SPIP_{it}$**	**$SDGSAE_{it}$**
1	**2**	**3**	**4**	**5**	**6**
_CONS		0.415 (0.576)	225,858 (0.000)	0.415 (0.576)	225,858 (0.000)
$SPIP_{it}$	(+)	-	0.619** (0.032)	-	0.619
$APIP_{it}$	(+/-)	0.274*** (0.000)	-0.158 (0.637)	0.274*** (0.000)	-0.158 (0.626)
$SIZE_{it}$	(+/-)	0.041 (0.117)	-4,945*** (0.000)	0.041 (0.116)	-4,945*** (0.000)
$AGES_{it}$	(+/-)	0.003*** (0.000)	-0.034*** (0.000)	0.003*** (0.000)	-0.034*** (0.000)
$ISLAND_{it}$	(+/-)	0.271*** (0.000)	8,473*** (0.000)	0.271*** (0.000)	8,473*** (0.000)
MUN_{it}	(+/-)	0.016 (0.671)	-19,569*** (0.000)	0.016 (0.670)	-19,569*** (0.000)
Prob > chi2 / Prob > F		0,000	0,000	0,000	
Pseudo R2 / Adj R-squared		0.147	0.517		

Number of Observations = 2,005. Explanation of variable operationalization in Table 2. ***, **, * = significant P-value 1%, 5%, 10%.

Source: Secondary data, STATA-14.2 output (Processed, 2023).

Finally, current initiatives to executing the SDGs within the public administration systems of developing nation have had an impact on reducing the percentage of poverty [2]. The participation of State Audit Institutions throughout the world in auditing SDG implementation is something that is not common [34]. However, this is something

that has a strong correlation between the government audit process, especially in District/City Governments, towards the achievement of SDGs in goal 1. Table 6 panel (A) shows that the role of APIP is in line with the achievement of residents/households with access to basic services: (1) access to drinking water services, as well as in Table 6 panel (B) shows the positive influence of APIP on the achievement of residents/households with access to basic services: (2) access to basic sanitation services, apart from that on Table 6 panel (C) shows that APIP has a positive impact on residents/households with access to basic services: (3) access to basic health facilities. Meanwhile, Table 6 panel (D) shows that APIP has a negative influence on the adult population who acquire land rights through legal documentation and the distribution of land rights based on gender and ownership type: (1) Proportion of households with owned houses. However, on average District/City Governments in Indonesia have shown real efforts to achieve the SDGs.

5. Conclusion

The main objective is to analyze the role of APIP capabilities in the effectiveness of SPIP and the extent of its influence on the achievement of SDGs in Indonesia. Besides that, it is also hoped that this research can become a standard of comparison for the performance of government internal audits, especially District/City Governments and increase the effectiveness of District/City Government SPIP in achieving SDG 1, without poverty. The findings and discussions presented in this study it can be inferred that the effectiveness of SPIP is positively influenced by the role of APIP. The higher the APIP capability in the District/City Government, the SPIP in the District/City Government will also increase. In addition, it was found that the role of APIP negatively impact SDG 1, in essence, the APIP capability of the District/City Government is inversely proportional to the percentage of the population living below the national poverty line, with higher APIP capability associated with a decrease in this percentage, considering gender and age group factors. Likewise, the effectiveness of SPIP in District/City Governments has a negative influence on the achievement of SDG 1. The higher the SPIP maturity of the District/City Government, the decline in the percentage of the population living below the national poverty line is anticipated. Therefore, to increase the achievement of SDG 1 in District/City Governments, it is necessary to create an effective SPIP and an optimal APIP role. Therefore, as a strategy to achieve the SDGs and at the same time reduce poverty rates in the regions, District/City Governments need to establish supporting

policies to ensure the implementation of programs to increase APIP capability and the effectiveness of SPIP implementation.

The implications of the results of this research are closely related to transformation efforts in realizing sustainable development goals, especially related to poverty alleviation in the regions, so it can be said that to achieve the SDGs, regional government commitment is needed to increase APIP capabilities and make SPIP implementation more effective.

The limitation of this research is only used District/City Government data for 2018-2021 and only analyzes 1 of the 17 global targets. SDG 1 is no poverty. In addition, only APIP capability and SPIP maturity were examined in this research, resulting in limitations in the variations in SDGs achievement that could be described in this research.

It is hoped that future research will examine how APIP capability and SPIP maturity can influence various SDGs pillars more broadly and in depth. This will help in understanding the contribution of the government sector in achieving overall sustainable development goals and enable to design more effective and sustainable policies.

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