

Does village fund audit affect village development? An empirical study of villages in Aceh Province

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ABSTRACT

It is well-known that additional cases of misappropriating village funds are reported yearly. Without adequate oversight and control, the fraud and corruption trends in village funds will continue to prevail and hinder village development. The increase of funds transferred to villages has failed to eliminate the number of underdeveloped villages in Indonesia, which is still 24.39% nationally and 36,15% in Aceh Province. This study examined whether the local government's audit of village funds positively affects village development as measured by the Village Development Index (IDM) value. The relationship between audits, the number of auditors, and audit fees on village development is examined using a quantitative approach and the regression method. A qualitative technique was also used to gain insights into the implementation of village fund audits. The study found a positive relationship between auditing and audit fees for IDM, while the number of auditors is unrelated to IDM. Compared to unaudited villages, audited villages have higher IDM scores. Despite having a good relationship, the implementation of the audit faced challenges, among others, the lack of legislation, the absence of auditing and accounting standards, the auditor's ambiguous authority, the scarcity of audit resources, and the local government's recklessness in performing their duties.

KEYWORDS:

Audit; village fund; village development; audit fee

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INTRODUCTION

Undoubtedly, Law Number 6 of 2014 concerning Villages is one of the government initiatives to advance the economy from the periphery in line with the country's medium-term development plan (Rencana Pembangunan Jangka Menengah , RPJM). The government adopted this policy to address the economic growth rate gap in urban and rural areas. Development, according to Todaro and Smith (2011), "focuses not only on enhancing economic growth but also on the redistribution of growth outcomes." Villages that are formerly only objects of development are now granted the authority to manage their finances, which can derive from Village Original Income (Pendapatan Asli Desa, PADesa), APBN allocations which is Village Funds (Dana Desa, DD), a portion of regional taxes and levies, Village Fund Allocations (Alokasi Dana Desa, ADD)-which is part of the balancing funds received by the district/city, financial assistance from the local government budget (Anggaran Pendapatan Belanja Daerah, APBD), grants, and other legal village income. Can the villages' economic growth catch up with such extensive authority granted to villages?

Village development aims to meet basic needs, create infrastructure and facilities, also foster local economic growth with the sustainable use of the environment and natural resources to promote the welfare of rural communities and the quality of life as well as reduce poverty. It has been established that transferring money to villages has advantages for the community, including improving infrastructure and quality of life also the growth of local economies. However, improvements must be made to implement this program, such as enhancing institutional and human resources capability also improving oversight and accountability. The amount of money transferred to villages increases yearly, as depicted in Figure 1. However, the number of underdeveloped villages in Indonesia has not yet been able to be eliminated. The number of underdeveloped villages in 2021 remains unchanged at 24.39%. In addition, according to the records of Indonesia Corruption Watch, 676 village officials have been prosecuted ever since village funds were transferred to the village administration in 2015 up to 2020 (Guritno & Krisiandi, 2021). This number only includes cases that have gone through the court decision

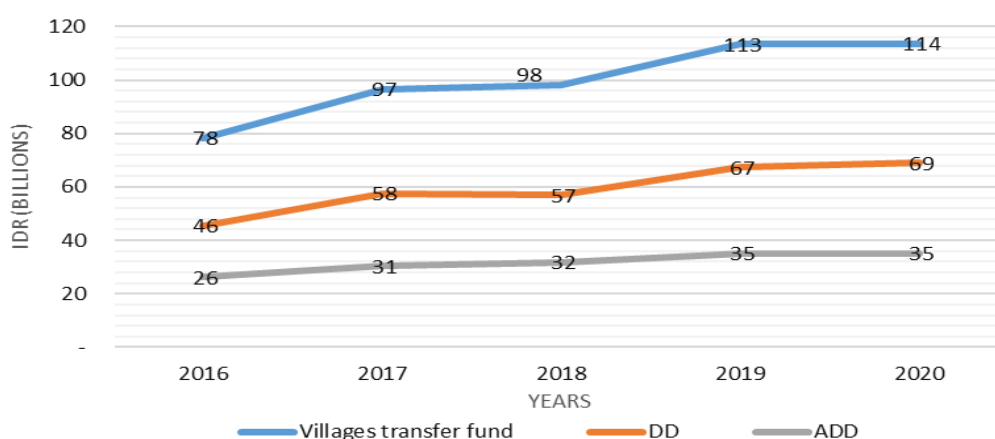


Figure 1. Villages Transfer Funds Growth
 Source: Government Financial Report (processed)

process. Overall, misuse of village funds continues to remain.

Villages in Indonesia are classified as developing villages for the most part. According to the data for 2021, about 51.66% of villages are still classified as developing villages. The proportion of independent villages (4.44%) is still lower than villages considered very underdeveloped (6.58%). Up to 2021, there are 12,635 underdeveloped villages and 5,649 very underdeveloped villages. Even though statistics show that the number of independent and developed villages is increasing, the growth is still slow, given the rising number of village funds. Aceh Province, with a percentage of 36.14%, is one of the regions with a high number of villages that are still underdeveloped. Aceh Province is the third-largest province in Indonesia in terms of the number of villages, and all of its districts and cities have village administrations. The distribution of Village Development Index (Indeks Desa Membangun, IDM) data in Aceh Province is quite diverse. Aceh Province has 41 independent villages, 486 developed villages, 3,621 developing villages, 2,155 underdeveloped villages, and 193 very underdeveloped villages. Under these circumstances, Aceh's average IDM score still ranks 27th out of 33 provinces that received village funding. This suggests an issue with the management of village funds in Aceh Province.

In most developing nations, corruption remains a serious issue (Dye, 2007; Olken, 2007). According to Jeppesen (2019), corruption can harm government institutions, impede welfare distribution, and promote public distrust. Village fund corruption is still widespread, which is a sign of poor management of village funds. Various recognized corruption tactics are used in village fund management, including the fabrication of reports and projects also embezzlement (Srirejeki & Faturokhman, 2020). Monitoring of village funds management is still insufficient; therefore, the goal of the village funds program is not optimal (Anam, 2017).

Unlike the provincial, district, and city governments (Pemerintah Daerah, Pemda), which are still part of the government system run by the State Civil Apparatus (Aparatur Sipil Negara, ASN), the village government stands independently in the district/city area. The local government's financial management system is set up to reduce potential misuse of regional money and maintain regional financial accountability, including engaging an external auditor. Top-down supervision by officials such as the Inspectorate, Finance and Development Supervisory Agency (Badan Pengawasan Keuangan dan Pembangunan, BPKP), or the Audit Board of the Republic of Indonesia (Badan Pemeriksa Keuangan, BPK) effectively prevents and uncovers financial irregularities. However, this type of supervision is inefficiently applied to village supervision, given the large number of villages in Indonesia (Aprilia & Shauki, 2020).

According to regulations, supervision in the village involves many entities, starting from supervision at the village level by the Village Consultative Body (Badan Permusyawarahan Desa, BPD) and the community, supervision at the district/city and provincial levels by the regional Inspectorate, and supervision at the central level carried out by the Ministry of Home Affairs and BPKP. BPK, the state auditor, might audit the village funds' management. However, it has been challenging for BPK, BPKP, and the Ministry of Home Affairs to monitor the

use of village finances directly due to the extensive span of jurisdiction and scarce resources. Aprilia and Shauki (2020) also Istiqa and Nursadi (2019) discovered that supervision conducted by BPD and the village community could have been more optimal due to limited information and access to village reports and the village community's lack of understanding and awareness. Ultimately, the regional Inspectorate's oversight played a crucial part.

An essential tool in the monitoring of public finances is an audit. According to Arens et al. (2012), an audit is gathering and analyzing informational evidence to ascertain and report the degree of information compliance with specific predetermined criteria. According to INTOSAI (2019), it is a systematic method of objectively gathering and assessing evidence to assess whether the information or actual circumstances conform to established standards. Law number 15 of 2006 concerning BPK uses the term "examination" for the external auditor's audit activities, which means the process of identifying problems, analyzing, and evaluation, which is carried out independently, objectively, and professionally based on auditing standards to assess the truth, accuracy, credibility, and reliability of information regarding the management and responsibility of state finances.

According to INTOSAI (2019), public sector audits provide legislative or oversight bodies and the general public with unbiased information and assessments concerning the effectiveness of governmental programs, policies, and activities. Otalor and Eiya (2013) mention the main purpose of a public sector audit is to ensure that public funds have been used properly and effectively. As information asymmetry is very likely to occur while managing public finances, it is crucial to conduct an audit (Sitanala, 2019). The village government, which manages village funds, is undoubtedly better informed than the village's general community on how those funds are being spent. One of the objectives of the audit is to minimize the information gap between agents (government) and principals (community). Srirejeki and Fatur-okhman (2020) state that adequate supervision is needed to ensure the management of village funds. Thereby, the objectives of implementing the village fund program can be achieved.

The benefits of having an audit have been widely researched before. According to Hay and Cordery (2017) also Gans-Morse et al. (2018), audits provide direct benefits for stakeholders

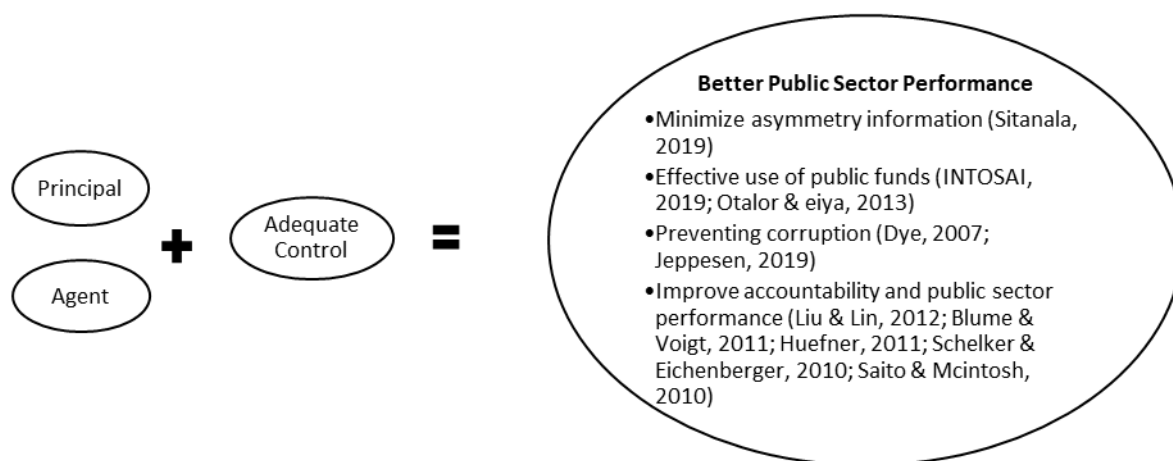


Figure 2. Theoretical Framework

and externalities that benefit society and are believed to be connected to more robust economic performance. According to Dye (2007), Otalor and Eiya (2013), Gustavson and Sundström (2018) also Jeppesen (2019), auditing plays a crucial part in preventing attempts towards corruption. According to Liu and Lin (2012) also Rosa and Morote (2016), government audits can improve accountability and reduce opportunities for abuse of power, fraud, and inefficiency, which can result in financial losses or ineffective use of resources. On the other hand, Saito and McIntosh (2010) found a positive relationship between auditing and improving school performance. From this theoretical framework, we can assume that village fund audits can improve village performance (H1).

Audit quality is important to ensure that audit positively affects village performance. Many factors determine audit quality. Giroux and Jones (2011) express that audit quality is related to the number of audit clients and the type of local government. Masood and Lodhi (2015) state that the availability of human resources, intellectual human resources, and financial resources are important factors to support audit quality. Zhao (2005) in Liu and Lin (2012) states that there are three determinants of audit quality, namely: technical factors (professional competence, number of auditors, and total audit time), independence factors (audit fees, auditor reputation, and audit organization design) and administrative factors.

Apart from these factors, Liu and Lin (2012) state that follow-up on audit recommendations is more important than the process of detecting fraud in the audit itself. Mugo (2014) and Nabulu (2015), who conducted research in Kenya, found that the success of monitoring was influenced by the education and training of monitoring personnel, the monitoring budget, and the monitoring timing. Thus, it can be concluded that many factors determine the success of public sector audit implementation. However, due to limited data, this study uses variables such as the presence or absence of audits, the number of auditors, and audit fees. Research on village funds has been done with an array of topics, such as corruption in village funds (Srirejeki & Faturokhman, 2020), the impact of village funds on dealing with stunting (Indra & Khoirunurrofik, 2022), poverty (Anam (2017); Fitriana (2020)), inequality between villages (Susanti, 2017), disaster management (Simanjuntak, 2020), the impact of village-owned enterprise (Badan Usaha Milik Desa, BUMDes) on the village economy (Puri & Khoirunurrofik, 2021). Monitoring village funds, particularly those primarily related to implementing audits carried out by the regional government for villages, has not received the much-needed academic attention. This study aims to determine whether the village's development has benefited from the audit that the local administration undertook. This study is also expected to provide references and points of view on how audit affects village performance. Practically, this study is expected to provide input to policymakers in order for them to evaluate village fund oversight activities through audit activities.

RESEARCH METHOD

An analytical framework was created to clarify the connection between the factors investi-

gated and village development. The Village Development Index released annually by the Ministry of Villages, Disadvantaged Regions, and Transmigration (Ministry of Villages), will measure village development. The Audit, the primary variable in this study, will interact with Village Funds (Dana Desa, DD) and Allocation of Village Funds (Alokasi Dana Desa, ADD) before being regressed using IDM along with the variable number of auditors and village fund audit fees. The number of DD, ADD, and educational levels of village leaders and BUMDes was utilized as a control variable to reduce bias.

In this study, both primary and secondary data were utilized. The Village Development Index, published by the Ministry of Health from 2018 to 2022, is an example of secondary data. Additional secondary data that can be accessed from the Ministry of Villages, Disadvantaged Regions, and Transmigration include information on the number of BUMDes and the educational level of village leaders. The primary data needed in this study is connected to village fund audit data, the number of auditors, the cost of village fund audit, DD, and ADD for 2018-2021. The unit of analysis in this study is 6,496 villages in Aceh Province from 2018 to 2021. Therefore, the total data to be processed is 25,984.

The dependent variable in this study is village development, which is taken from the village development indicator, namely the IDM. IDM is a composite index formed based on three indices: the social resilience index, the economic resilience index, and the environmental resilience index. IDM captures the development of village independence due to village fund support provided by the government. IDM was created by collaborating with the village to gather data and information based on the actual circumstances. Each indicator is given a score of 0 – 5. The maximum score for the Social Resilience Index (Indeks Ketahanan Sosial, IKS) is 175. In contrast, for the Economic Resilience Index (Indeks Ketahanan Ekonomi, IKE), the maximum score is 60, and the Environmental Resilience Index (Indeks Ketahanan Lingkungan, IKL) has a maximum score of 15. Village status will be divided into independent, advanced, developing, underdeveloped, and very underdeveloped villages. Based on the IDM number, the village status is classified into the following: Independent village - $IDM > 0.8155$; Developed village - $0.7072 < IDM \leq 0.8155$; Developing village - $0.5989 < IDM \leq 0.7072$; Underdeveloped villag-

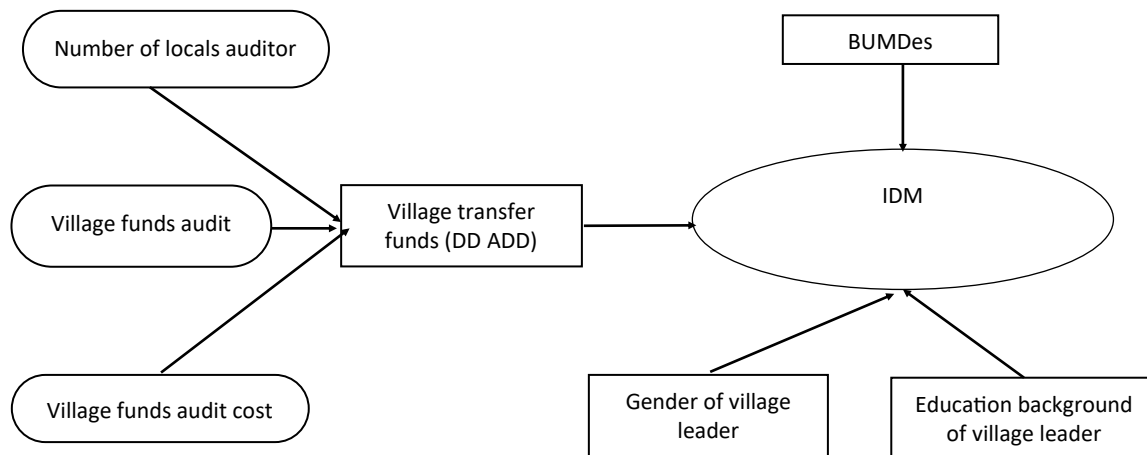


Figure 3. Analytical Framework

es - $0.4907 < \text{IDM} \leq 0.5989$; and very underdeveloped villages - $\text{IDM} \leq 0.4907$.

A village fund audit serves as the study's main independent variable. Audit, according to the State Finance Law, is a process of identifying problems, analyzing and evaluating carried out independently, objectively, and professionally based on auditing standards to assess the truth, accuracy, credibility, and reliability of information regarding the management and responsibility of state finances. The regional auditor audits all revenues and expenses in the village regardless of the village's source of income. The audit is performed because the district/city administration receives a single report from the village government detailing all village revenues and expenses. The auditor uses this report as a reference while performing the audit. Therefore, the audit variable here is defined as an audit of transfer funds received by the village in the form of either DD or ADD. In this study, the audit variable is a dummy variable whereby if the village is audited, it will be given a value of 1; otherwise, the value will be 0.

Village audits are heavily reliant on the existing resources of local governments. According to Masood and Lodhi (2015), the availability of human, intellectual, and financial resources are crucial components to supporting audit quality. Giroux and Jones (2011) suggest that the quantity of auditees significantly impacts audit quality. According to Abdolmohammadi and Tucker (2002), a nation's prosperity is correlated with the number of auditors. According to Rainey and Steinbauer (1999) also Irwin et al. (1998), the number of auditors and available financial resources determine how effective an audit is. In general, various factors influence the implementation of public sector audits. However, only the quantity of auditors and audit fees will be examined in this study.

The number of auditors represents how many auditors the district/city Inspectorate has available. Personnel must obtain a certificate from the Ministry of Home Affairs or BPKP to become regional auditors. The village audit cost refers to the local government's budget allocated by the Inspectorate to conduct the village monitoring program. The amount of the audit budget may come from routine and special audits with the village as the target of oversight. All costs incurred by the Inspectorate to conduct audit villages can be included in this variable.

It is necessary to add a control variable to minimize the bias brought on by the link between the dependent and independent variables. This control variable can be used to identify the underlying causes of IDM. The number of DD, the allocation of ADD, the level of education of the village head, and the number of BUMDes serve as the study's control variables. This variable was chosen based on earlier research that showed a positive correlation between IDM and DD (Ekawati, 2022), the education level of village heads (Nadia, 2022), BUMdes (Puri & Khoirunurrofik, 2021), and gender (Pahlevi & Setiawan, 2017).

The village fund is a fund that is designated for villages and derives from the APBN. The district/city APBD is distributed to villages to fund local government operations, development initiatives, and community empowerment. Meanwhile, ADD serves to balance funds that dis-

districts and cities receive in the district and municipal APBD following the deduction of the Special Allocation Fund (Dana Alokasi Khusus, DAK). In contrast to ADD, which is primarily put to use to fund village apparatus, DD is designed to run village programs. In this study, the variables DD and ADD stand alone to show their respective correlations to IDM due to the various goals of DD and ADD.

The amount of funds the government transfers to the village government is used in the DD and ADD values. It is presumed that every penny received was used during the current fiscal year. This assumption was established due to the difficulty in locating information on spending realization by a village. This presumption also applies to data on village spending by province, which shows that almost all of the village funds are used in the same fiscal year. According to this, villages in Aceh province will spend 93.18% of their revenue in 2019, 98.15% in 2020, and 97.45% in 2022. The variable BUMDes is the number of BUMDes registered into the system at the Ministry of Villages. The gender of the village head is coded in two groups where the female is coded 0, and the male is 1. Meanwhile, the village head's education is the number of years of formal education completed by the village head.

This study employs a quantitative technique along with econometric analysis. Panel data and regression using Ordinary Least Squares (OLS) are applied. Using panel data may detect and estimate impossible impacts or influences with cross-section or time series data. A qualitative method was used to explain the detailed findings of the econometric analysis. Interviews were conducted to gather pertinent data on the audit process used by the local government in villages. The following model was used to analyze the effect of audits on village development:

$$LIDM_{dw} = \beta_0 + \beta_1 Audit_{dw} + \beta_2 LocalAuditor_{kw} + \beta_3 AuditCost_{dw} + \beta_4 LDD_{dw} + \beta_5 LADD_{dw} + \beta_6 Gender_{dw} + \beta_7 EduKades_{dw} + \beta_8 BUMDes_{dw} + \epsilon_{dw} \dots\dots\dots (1)$$

RESULT AND DISCUSSION

Aceh province has the third largest number of villages in Indonesia. Aceh Province consists of 6,496 villages, which is only smaller in number compared to villages in Central Java and East Java Provinces. From the district/city perspective, North Aceh District (852 villages) has the most villages even though its area is not the largest in Aceh. Meanwhile, Sabang City (18 villages) has the fewest villages. Detailed information regarding village statistics in Aceh Province can be seen in Appendix 1.

According to Puri and Khoirunurrofik (2021), BUMDes can provide more significant benefits to the local economy than villages without village-owned enterprises. The number of BUMDes in Aceh Province in 2020 is 4,585, or 70.58% of the total village in Aceh. In Sabang City, all villages have BUMDes, compared to Pidie District, where only one-third of the villages have BUMDes. Further research discovered that only 2,965 (45.64%) BUMDes of 4,585 could generate income. This suggests that many BUMDes are still operating their businesses

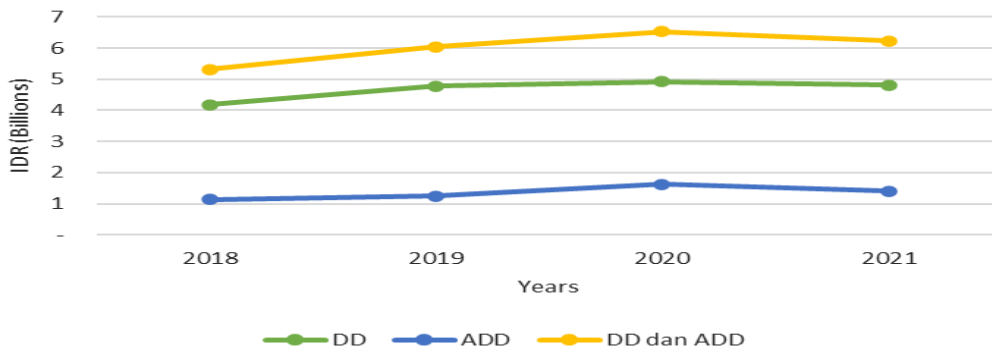


Figure 4. Growth of DD and ADD in Aceh Province

without proper procedures. During 2018–2021, local governments granted villages IDR 24.1 trillion through DD and ADD. The distribution of DD and ADD reached the amount of IDR 5.3 trillion in 2018 and IDR 6.5 trillion in 2021. The number of DD and ADD increased every year except for 2021 due to the impact of the pandemic. North Aceh District distributes the largest DD and ADD as it has many villages, while Sabang City distributes the smallest portion for its DD and ADD. The increase in transfers of funds to villages can be seen in Figure 4.

Most village leaders in Aceh Province are men, as presented in Appendix 2. Meanwhile, according to their education level, most village leaders have a senior high school or university degree. Nevertheless, some regional leaders did not complete their senior high school education. In Subulussalam City, 20% of the villages are still governed by village heads who have not attained their senior high school diplomas. The Development Village Index is an indicator issued by the Ministry of Villages for PDDT to measure development at the village level. Based on these indicators, villages are grouped into five categories: independent, developed, developing, underdeveloped, and very underdeveloped. The average IDM score for a village in Aceh Province in 2022 is 0.6483, classifying it as a developing village. This rank places Aceh in 26th position out of 33 Indonesian provinces and is still below the national average (0.6724). Aceh province's IDM score has improved. However, it is still below the national average. The national and Aceh province's IDM are contrasted, as depicted in Figure 5.

In addition to increasing the IDM value, the status of villages in Aceh has also experienced development. In 2018, there were only 13 independent and 4,183 underdeveloped and very underdeveloped villages. This number continues to change so that in 2022, independent vil-

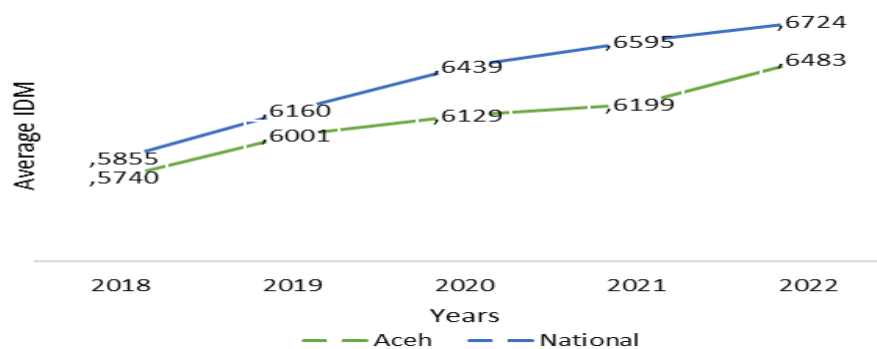


Figure 5. Growth of IDM in Aceh Province and National Level

lages will increase to 224 villages, and underdeveloped also very underdeveloped villages will decrease to 1,456. The increase in the number of independent and developed villages and the decrease in the number of underdeveloped and very underdeveloped villages indicates that there is development in the villages that aligns with the indicators set by the government. The increase in independent and developed villages aligns with the increased funds transferred to the villages. The changes are briefly presented in Table 1.

Even though the amount of DD and ADD distributed by the government did not increase in 2021, there is significant growth in the number of independent villages in 2022. The COVID-19 epidemic restricted the ability of local administrations to manage their money. The central government requires some of the village's funds to provide social assistance to needy people. This limitation on using village funds can increase IDM in Aceh Province. This unusual condition is attractive for further research to explore whether the central government's intervention in village finances positively impacted village development.

Article 27 of the Minister of Home Affairs Regulation Number 20 of 2018 concerning Village Financial Management states that local governments must supervise the distribution of village funds. The mayor or regent engages with the local government internal auditor known as the Government Internal Supervisory Apparatus (Aparatur Pengawas Internal Pemerintah, APIP) to oversee the execution of village financial management. This rule does not specify the requirement for an audit of village funds. As a result, each district/city has its interpretation of this regulation. Some regions perceive it enough for village funds to be monitored for distribution, while sampling sufficiently checks their accountability. This will undoubtedly raise the possibility of misappropriating local money in unaudited areas.

When monitoring the village government, the local government Inspectorate refers to it as an audit. The audit is always conducted as a post-audit, which means it is done after the village money has been spent. The audit of the village funds is based on the village's reporting on the utilization of the funds. The Inspectorate uses the term audit and audit practices to implement Article 27 of the Ministry of Home Affairs Regulation Number 20 of 2018. Technical regulations regarding the implementation of village funds audits do not yet exist. Only 33.42% of villages are audited on average by the local government Inspectorate. This suggests that the local government will need three years to audit all villages, assuming the same village

Table 1. Number of Villages in Aceh Province by their status (2018-2022)

| Year | IDM status | | | | | Total |
|------|-------------|-----------|------------|----------------|---------------------|-------|
| | Independent | Developed | Developing | Underdeveloped | Very Underdeveloped | |
| 2018 | 13 | 161 | 2,138 | 3,623 | 560 | 6,495 |
| 2019 | 26 | 362 | 2,942 | 2,858 | 308 | 6,496 |
| 2020 | 32 | 397 | 3,458 | 2,404 | 205 | 6,496 |
| 2021 | 41 | 486 | 3,621 | 2,155 | 193 | 6,496 |
| 2022 | 224 | 787 | 4,027 | 1,379 | 77 | 6,494 |

is not audited within that time. This figure is very small, considering that almost 67% of village funds are not audited annually. The number of villages being audited is decreasing every year. In 2018, 1,958 villages (39.43%) were audited; in 2021, only 1,377 villages (29.88%) were audited. According to the Inspectorate, this occurred due to budget refocusing during the pandemic. As a result, the budget allocated to perform audits at the Inspectorate was reduced. Details of the number of villages audited by regional governments from 2018-2021 are presented in Appendix 3.

Based on the data, the average number of auditors in Aceh Province in 2018-2021 reached 420 people. If all auditors are empowered to audit all villages, then one auditor can audit 16 villages. The number of auditors at the local government is increasing yearly; cumulatively, in 2018, the number of auditors in service with the Aceh local government reached 336 people, which will increase to 521 people in 2021. The highest comparison of the number of villages and auditors is found in Pidie District, where one auditor is responsible for 57 villages, while the lowest is in Lhokseumawe City, where one auditor is responsible for two villages.

Despite a decline in the average number of villages being audited, the average number of auditors employed at the regional level increased. This can be seen from the number of auditors, which continues to increase from 336 in 2018 to 521 in 2021. The rise in auditor numbers also impacts comparing the number of auditors to the villages audited. The workload per auditor will decrease as the number of auditors increases. According to BPKP (2014), local governments must employ at least 40 auditors. The number of regional auditors in Aceh is still below this ideal figure. This minimum amount is issued before direct funds are transferred to the village. The value of IDM also increased concurrently with the growth in the number of auditors. This is consistent with a statement by Abdolmohammadi and Tucker (2002) that the number of auditors correlates with a nation's level of wealth.

In Aceh, local governments incurred an average audit cost of 3.96 million per village. The total budget allocated to audit 6,661 villages within four years amounts to 26.3 billion. When comparing the budgets needed for different districts/cities, South Aceh District requires the least amount of money, whereas Nagan Raya District requires the most. Appendix 4 shows how each regional government absorbed the audit budget. On average, local governments paid more in audit costs between 2018 and 2020 than less in 2021. This trend is not in line with the yearly increase in IDM. The cost per audit in 2018 required 3.25 million and raised to 4.07 million in 2021. The increase in the number of auditors is not proportional to the increase in the cost of audit, which indicates that the addition of the audit budget does not match the addition of auditors. Hence, the number of villages audited each year does not increase even though Masood and Lodhi (2015) also Zhao (2005) have emphasized the importance of financial support in implementing a quality audit.

Regression was performed using Ordinary Least Square (OLS). Variables are controlled by year and district/city code in preparing the regression formulation to avoid bias. The relationship between IDM and village funds may be observed in Figure 6, while Appendix 5 presents

the OLS result. Compared to unaudited villages, audited villages often have higher IDM. According to the simultaneous F test, the probability value is 0.000 or less than 0.05, as can be observed. Therefore, it can be concluded that IDM is influenced by audit, the number of auditors, cost of audit, DD, ADD, gender, village head's education, and the number of BUMDes. The regression results also reveal a determinant coefficient of 0.2746, indicating that the independent variable impacts IDM by a factor of 27.46. The rest of IDM is affected by another factor not investigated. This is interesting because IDM is not based on the variables examined in this study, but the impact on IDM is substantial.

Although all independent factors impact IDM, each independent variable impacts the dependent variable differently. The audit variable, which is the focus of this study, demonstrates a positive and statistically significant relationship with IDM. With a 99% confidence level, the audit link to IDM is significant and favorable from model 1 to model 5. The value of the audit and IDM relationship remains constant despite the inclusion of additional control variables. This demonstrates a significant connection between village growth and the audit carried out by the Inspectorate.

In terms of the finding that auditing provides a beneficial impact on village development, it is consistent with earlier research that also found this to be true (Hay & Cordery, (2017); Gans-Morse et al. (2018); Wei et al. (2019)). An audit can enhance the village government's performance and be valued as a monitoring tool. Funds managed by the village can become more transparent with an audit and ultimately be used to achieve community objectives. The existence of a positive relationship between the implementation of audits and village development can be used as a basis for the local government in Aceh to increase the number of villages audited so that the IDM score in their area increases.

The link between IDM and other factors, such as the number of auditors and audit fees, is different. Local governments still have a relatively modest number of auditors. A minimum of 40 auditors, as mandated by BPKP, needs to be met in any region in Aceh. The minimal number of auditors would affect the audit standard since, as Masood and Lodhi (2015) discovered,

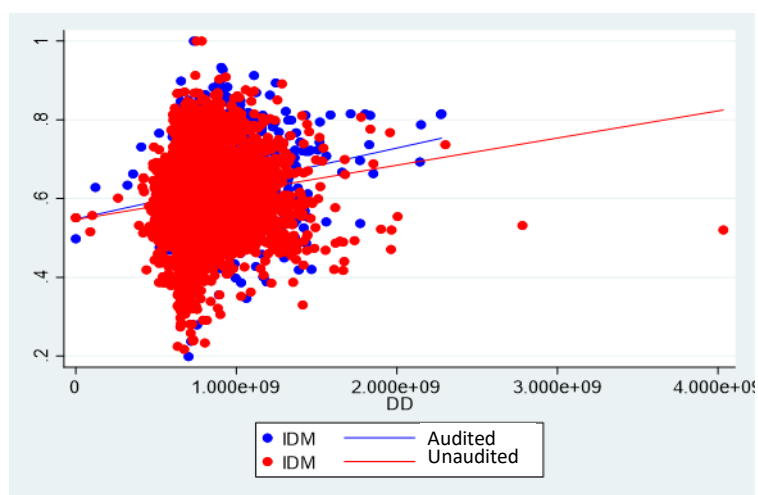


Figure 6. Scatter Plot Relation between IDM and Audited Villages/Unaudited Villages

there are not enough auditors in Pakistan to conduct audits. Audit fees, however, display a positive and robust relationship to IDM. This demonstrates that regions with larger audit expenditures earn higher IDM scores, which aligns with Mugo's (2014) and Nabulu's (2015) research that an adequate monitoring budget will determine monitoring success. The budget available for conducting audits is also related to audit quality (Masood & Lodhi, 2015).

The findings of this study reveal the negative association between DD and IDM compared to the research of Ekawati (2022) and Nadia (2022), which discovered a positive relationship between the two. The study that has been conducted, however, indicates that there is still a beneficial association between ADD and IDM. Even though there was a reduction in the amount of DD and ADD transferred to the village, the IDM value continued to increase. The difference in the direction of the relationship between DD and ADD towards IDM shows the ineffectiveness of using DD to encourage village development.

Control variables such as the educational background of the village head and the number of BUMDes owned by the village both have a positive and significant effect on IDM with a confidence level of 99%. This aligns with the research by Nadia (2022) also Puri and Khoirunurrofik (2021), who find that the higher the educational background level of the village head, the higher the IDM score. Similarly, increasing the number of BUMDes owned by a village might lead to a rise in IDM due to BUMDes' potential value as an economic engine for the community. The only factor that has no impact on IDM is gender. This might be the case as not many women rise to the position of the village leader, making the comparison pointless.

Even though there is a relationship between the implementation of inspections carried out by regional Inspectorates and village development, there are several challenges faced by regional Inspectorates in carrying out village inspections. These challenges are one of the reasons why not all villages are audited. Some challenges are village audit regulations, audit and accounting standards, inspectorate authority, number and capacity of auditors, budget, village government awareness, and IT support.

According to Aceh's local government inspectorate, the audit being conducted at the moment is based entirely on the Permendagri (regulation of the Ministry of Home Affairs) related to village funds management. These guidelines do not specify how village fund audits should be carried out, worsened by the lack of internal rules governing how the local authority should conduct the audit. Due to unclear laws regarding the requirement to audit village funds, only 33% of villages are audited annually. The absence of clear rules regarding the implementation of village fund audits raises several problems, including those related to the authority of the Inspectorate, audit standards, monitoring of follow-up audit findings, and handling of state losses from misuse of village funds. This aligns with Husnatarina's research (2020), which states that there are limited regulations in managing village funds, including the oversight element. Basically, it is BPK's responsibility to conduct an audit of the state's finances. Any village fund audit results conducted by the Inspectorate should be forwarded to BPK. The significance of BPK's involvement in reviewing village accountability reports is men-

tioned in Husnatarina's research (2020).

The audit results carried out by the Inspectorate certainly do not end with reporting. Therefore, it is important to regulate mechanisms related to the follow-up of audit findings. Liu and Lin (2012) state that following up on audit recommendations is more important than the process of detecting fraud in the audit itself. It is unclear how to handle state losses carried on by the misappropriation of local finances. While other regional governments return the money to the regional treasury, some regional governments restore the loss to the village. The government must strictly regulate this state loss.

The standards used by regional government inspectorates are based on BPKP supervision standards. The state financial audit standards prepared by the BPK should be used for audits related to state finances. BPKP supervision standards are carried out to monitor the implementation of government projects, not post audits as carried out by the inspectorate. Appropriate standards will, of course, impact the inspection management carried out later. Arens et al. (2012) have emphasized the importance of setting audit standards. In addition to problems with auditing standards, BPK (2022) notes that the absence of village government accounting standards is one of the vulnerabilities in village fund management. This is in line with Husnatarina (2020), who said that the absence of accounting standards is another barrier to accountability in the village. Accounting standards are crucial for village governments to use as a guide when managing their finances.

The district/city inspectorate embodies the monitoring function in the regions. The inspectorate is an extension of the regional head and is responsible for monitoring programs carried out by various Regional Apparatus Organizations (Organisasi Perangkat Daerah, OPD) and reports to the regional head. The independence element is a deciding factor for audit quality, according to Liu and Lin (2012). The inspectorate, whose position reports to the regional head, frequently has limited movement if it interferes with their interests. This also occurred during the auditing of village funds. Several Inspectorates acknowledged that they encountered constraints imposed by regional heads when selecting objects or conducting audits. The audit process is constrained not just by regional leaders but also by vertical agencies in the region. For instance, it will be challenging for the inspectorate to carry out its audit procedures if a vertical agency engages in operations involving villages.

The position of the inspectorate under the local government caused a polemic when the inspectorate conducted an audit of village funds. On the one hand, the village government is an independent governance structure; hence, the inspectorate's position becomes an external government party; on the other hand, the local government is the village's supervisor and advisor, which makes the inspectorate an internal government position. The district/city inspectorates expressed confusion over their position when performing village fund audits. The inspectorate's position needs to be established to support their audit activities.

The number of auditors within the regional governments is still insufficient based on the

statistics on the previously presented auditors. The number of auditors and the quality of the audit findings are directly correlated, according to Giroux and Jones (2011), who emphasize that audit quality is highly dependent on the number of auditees. Rainey and Steinbauer (1999), Masood and Lodhi (2015), also Irwin et al. (1998) agree that audit effectiveness depends on the number of auditors and financial resources. In addition to auditing villages, regional auditors are entrusted with assessing the region's schools, health services, and regional government agencies. Several inspectors complained about the lack of auditors, particularly given that not all auditors have technical expertise. The Inspectorate's auditors have not undergone specialized training in auditing local funds. Regardless, Mugo (2014) and Nabulu (2015) discover that the level of education and training of supervisory staff, the supervision budget, and the amount of time for supervision all affect supervision success.

Although the audit budget for 2018 through 2021 averaged above IDR 6 billion, the inspectorate still considered this amount insufficient. As explained by Irwin et al. (1998) also Masood and Lodhi (2015), financial resources are said to impact audit quality. The inspectorate's shoestring budget has impacted how much financial resources could be available for the village fund audit program. Due to this financial restriction, village fund audits are usually undertaken for several fiscal years. As a result of financial and human resources constraints, the inspectorate must be creative and innovative in developing its audit program.

Another obstacle in conducting audits is the lack of understanding of the village government's duties and responsibilities. The auditor occasionally has trouble carrying out the audit procedure since the village leader is unaware of their responsibilities. The same situation occurred with the Village Consultative Body or what is often referred to as BPD in the villages. More often than not, BPD carries out proper supervision. This finding aligns with Maria and Halim's research (2020), which reveal that the surveillance carried out by BPD is deemed ineffective as BPD is not fully aware of and does not recognize its duties and responsibilities.

Information technology (IT) support can help with financial and human resource constraints. However, there has not been enough IT support to conduct audit procedures up to this point. From this point forward, the only use of the IT support is for developing BPKP's webpage, which is used only to collect village accountability reports. The village leader can submit brief information on the expenditure of village finances using this page. Currently, the website does not have the accountability report's supporting documents. Thus, they cannot be used for an audit. The current page is only helpful in determining the village head's compliance level concerning filing reports on using local funds.

The district/city Inspectorate has tried to continue performing audits even though they encountered several challenges in relation to the audit's implementation. One of those challenges involves putting together several audit programs in one area. In addition, the inspectorate welcomes public complaints concerning instances of village finances being abused. Suppose there are indications that the village administration is engaged in illegal activity, which will lead to the loss of state funds. In that case, the inspectorate shall cooperate with law enforce-

ment officials to investigate further.

CONCLUSION

The results of this study indicate that the audit has a positive and significant effect on IDM. The result is in line with another research in the public sector, which finds a positive relation between audit and public sector performance. It proves that audits can be used as a tool for the government to reduce underdeveloped villages. In addition, other variables such as the cost of an audit, village funds, allocation of village funds, educational background of village heads, and the number of village-owned enterprises also significantly affect IDM. The implementation of audits conducted in villages is identified to have several weaknesses, including rules on audit liabilities, an absence of auditing and accounting standards, ambiguous authority of the inspectorate, a lack of budget support for audit implementation, a lack of village government understanding of supervision, and a lack of information technology support. To strengthen the performance of village fund audits, the government needs to take various actions, including strengthening village fund audit regulations, increasing local government support for audit resources, and utilizing information technology.

The government needs to create regulations that ensure proper monitoring of the funds managed by the villages. The position of the inspectorate should be explicitly stated in the established rules and regulations. Additionally, the government should develop accounting and auditing rules for village funds and address audit-related issues such as following up on audit findings and handling state losses due to misappropriation of village funds. Local governments should be aware of the availability of auditors to enhance the implementation of auditing in their region. The local government must strengthen auditing efforts to encourage good governance in village governments, bearing in mind that there are still so few auditors and budgetary support available for monitoring village funds.

Meanwhile, the government needs to create technology that promotes effective and efficient monitoring to meet the challenges in the current digital era and maintain existing resources. The budget and staffing requirements for conducting audits can be reduced through information technology. Support from IT also makes auditing easier by integrating all stakeholders.

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APPENDICES

Appendix 1. Village statistics of Aceh Province

| District/city | Num. of village | Num. of BUMDes | BUMDes with omzet | DD and ADD 2018* | DD and ADD 2019* | DD and ADD 2020* | DD and ADD 2021* |
|-------------------|-----------------|----------------|-------------------|------------------|------------------|------------------|------------------|
| South Aceh | 260 | 258 | 193 | 246,872.53 | 271,327.80 | 272,507.12 | 267,947.13 |
| Southeast Aceh | 385 | 385 | 136 | 306,776.20 | 344,087.10 | 346,932.40 | 344,878.99 |
| East Aceh | 513 | 165 | 135 | 430,411.38 | 475,214.65 | 464,920.47 | 470,044.87 |
| Central Aceh | 295 | 285 | 188 | 259,961.03 | 285,532.42 | 304,667.30 | 303,828.37 |
| West Aceh | 321 | 311 | 201 | 279,550.85 | 311,386.84 | 304,733.31 | 307,990.80 |
| Aceh Besar | 604 | 236 | 211 | 467,728.73 | 471,419.12 | 593,833.56 | 601,263.40 |
| Pidie | 730 | 236 | 154 | 578,797.63 | 608,109.40 | 709,900.25 | 632,299.12 |
| North Aceh | 852 | 459 | 333 | 660,966.19 | 729,441.02 | 803,270.04 | 623,813.65 |
| Simeulue | 138 | 124 | 42 | 147,839.19 | 164,809.56 | 163,104.20 | 162,442.04 |
| Aceh Singkil | 116 | 112 | 74 | 137,369.14 | 154,543.91 | 150,715.81 | 148,744.03 |
| Bireuen | 609 | 439 | 273 | 496,196.55 | 537,717.73 | 597,386.67 | 536,927.37 |
| Southwest Aceh | 152 | 151 | 128 | 151,877.78 | 165,543.63 | 162,804.15 | 162,226.54 |
| Gayo Lues | 136 | 134 | 121 | 123,858.44 | 135,596.67 | 146,108.73 | 148,784.14 |
| Aceh Jaya | 172 | 170 | 99 | 161,300.10 | 179,234.44 | 178,477.77 | 175,262.06 |
| Nagan Raya | 222 | 221 | 87 | - | 228,623.71 | 242,780.07 | 225,108.10 |
| Aceh Tamiang | 213 | 196 | 158 | 212,460.31 | 236,743.16 | 236,463.56 | 251,899.44 |
| Bener Meriah | 232 | 230 | 186 | 203,458.18 | 228,391.11 | 242,238.96 | 245,121.12 |
| Pidie Jaya | 222 | 221 | 99 | 194,595.71 | 211,351.57 | 221,017.13 | 214,867.37 |
| Banda Aceh City | 90 | 45 | 27 | 122,901.59 | 135,109.36 | 128,952.03 | 130,077.06 |
| Sabang City | 18 | 18 | 13 | 35,900.29 | 51,789.49 | 60,487.78 | 60,907.42 |
| Lhokseumawe City | 68 | 65 | 48 | - | - | 99,535.39 | 105,843.98 |
| Langsa City | 66 | 64 | 25 | 98,632.18 | 106,973.69 | 104,867.88 | 104,873.82 |
| Subulussalam City | 82 | 60 | 34 | - | - | - | - |
| Total | 6,496 | 4,585 | 2,965 | 5,317,454.00 | 6,032,946.39 | 6,535,704.58 | 6,225,150.81 |

Appendix 2. Educational Background of Village Leader in Aceh Province

| District/city | Gender of Villages Leader (%) | | Education Background of Village Leader (%) | |
|-------------------|-------------------------------|--------|--|---------------------------------------|
| | Male | Female | Graduate from senior high school or higher | Graduate less than senior high school |
| South Aceh | 100 | 0 | 88.85 | 11.15 |
| Southeast Aceh | 91.54 | 8.46 | 95.84 | 4.16 |
| East Aceh | 98.84 | 1.16 | 88.69 | 11.31 |
| Central Aceh | 99.32 | 0.68 | 83.73 | 16.27 |
| West Aceh | 96.93 | 3.07 | 81.68 | 18.32 |
| Aceh Besar | 94.52 | 5.48 | 94.70 | 5.30 |
| Pidie | 99.73 | 0.27 | 93.56 | 6.44 |
| North Aceh | 95.19 | 4.81 | 89.08 | 10.92 |
| Simeulue | 95.74 | 4.26 | 96.38 | 3.62 |
| Aceh Singkil | 96.61 | 3.39 | 81.90 | 18.10 |
| Bireuen | 100 | 0 | 92.94 | 7.06 |
| Southwest Aceh | 100 | 0 | 90.79 | 9.21 |
| Gayo Lues | 100 | 0 | 84.56 | 15.44 |
| Aceh Jaya | 100 | 0 | 80.23 | 19.77 |
| Nagan Raya | 99.10 | 0.90 | 89.64 | 10.36 |
| Aceh Tamiang | 93.64 | 6.36 | 92.02 | 7.98 |
| Bener Meriah | 98.29 | 1.71 | 91.38 | 8.62 |
| Pidie Jaya | 99.10 | 0.90 | 98.65 | 1.35 |
| Banda Aceh City | 89.47 | 10.53 | 97.78 | 2.22 |
| Sabang City | 100 | 0 | 100.00 | 0.00 |
| Lhokseumawe City | 100 | 0 | 97.06 | 2.94 |
| Langsa City | 97.01 | 2.99 | 98.48 | 1.52 |
| Subulussalam City | 100 | 0 | 79.27 | 20.73 |

Appendix 3. Number of Audited Village per District/City (2018-2022)

| District/city | Number of Villages | Number of Audited Village | | | | | | | |
|-------------------|--------------------|---------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | | 2018 | % | 2019 | % | 2020 | % | 2021 | % |
| South Aceh | 260 | 260 | 100 | 260 | 100 | 3 | 1.15 | 73 | 28.08 |
| Southeast Aceh | 385 | 102 | 26.49 | 54 | 14.03 | 95 | 24.68 | 98 | 25.45 |
| East Aceh | 513 | 24 | 4.68 | 62 | 12.09 | 58 | 11.31 | 16 | 3.12 |
| Central Aceh | 295 | 67 | 22.71 | 61 | 20.68 | 11 | 3.73 | 14 | 4.75 |
| West Aceh | 321 | 36 | 11.21 | 36 | 11.21 | 57 | 17.76 | 68 | 21.18 |
| Aceh Besar | 604 | 326 | 53.97 | 309 | 51.16 | 455 | 75.33 | 351 | 58.11 |
| Pidie | 730 | 88 | 12.05 | 35 | 4.79 | 73 | 10.00 | 43 | 5.89 |
| North Aceh | 852 | 271 | 31.81 | 266 | 31.22 | 200 | 23.47 | 36 | 4.23 |
| Simeulue | 138 | 46 | 33.33 | 55 | 39.86 | 23 | 16.67 | 7 | 5.07 |
| Aceh Singkil | 116 | 45 | 38.79 | 18 | 15.52 | 11 | 9.48 | 29 | 25.00 |
| Bireuen | 609 | 124 | 20.36 | 65 | 10.67 | 31 | 5.09 | 11 | 1.81 |
| Southwest Aceh | 152 | 60 | 39.47 | 60 | 39.47 | 42 | 27.63 | 60 | 39.47 |
| Gayo Lues | 136 | - | - | 133 | 97.79 | 73 | 53.68 | 43 | 31.62 |
| Aceh Jaya | 172 | 172 | 100 | 53 | 30.81 | 57 | 33.14 | 63 | 36.63 |
| Nagan Raya | 222 | - | - | 12 | 5.41 | 18 | 8.11 | 39 | 17.57 |
| Aceh Tamiang | 213 | 205 | 96.24 | 188 | 88.26 | 81 | 38.03 | 116 | 54.46 |
| Bener Meriah | 232 | 34 | 14.66 | 55 | 23.71 | 80 | 34.48 | 161 | 69.40 |
| Pidie Jaya | 222 | 18 | 8.11 | 19 | 8.56 | 20 | 9.01 | 19 | 8.56 |
| Banda Aceh City | 90 | 55 | 61.11 | 42 | 46.67 | 36 | 40.00 | 43 | 47.78 |
| Sabang City | 18 | 9 | 50.00 | 12 | 66.67 | 15 | 83.33 | 10 | 55.56 |
| Lhokseumawe City | 68 | - | - | - | - | 68 | 100 | 68 | 100 |
| Langsa City | 66 | 16 | 24.24 | 11 | 16.67 | 13 | 19.70 | 9 | 13.64 |
| Subulussalam City | 82 | - | - | - | - | - | - | - | - |
| Total | 6,496 | 1,958 | 39.43 | 1,806 | 35.01 | 1,520 | 29.35 | 1,377 | 29.88 |

Appendix 4. Number of Local Auditors and Cost of Audit per District/City (2018-2022)

| District/city | Number Village | Ave. Auditor 2018-2021 | village/Auditor | 2018 | 2019 | 2020 | 2021 | Num. audited vlg 2018-2021 | Audit cost/ Village | 2018 | 2019 | 2020 | 2021 |
|-------------------|----------------|------------------------|-----------------|------|------|-------|------|----------------------------|---------------------|-------|-------|-------|-------|
| South Aceh | 260 | 25.50 | 10,20 | 0,07 | 0,08 | 10,33 | 0,44 | 596 | 1,62 | 1,10 | 1,56 | 1,41 | 3,66 |
| Southeast Aceh | 385 | 21.75 | 17,70 | 0,14 | 0,31 | 0,24 | 0,34 | 349 | 3,72 | 1,96 | 6,48 | 4,74 | 3,06 |
| East Aceh | 513 | 31.25 | 16,42 | 1,25 | 0,52 | 0,53 | 2,00 | 160 | 3,84 | 4,24 | 5,71 | 1,65 | 3,97 |
| Central Aceh | 295 | 18.75 | 15,73 | 0,24 | 0,30 | 1,82 | 1,50 | 153 | 8,00 | 6,87 | 6,96 | 12,51 | 14,34 |
| West Aceh | 321 | 13.00 | 24,69 | 0,22 | 0,36 | 0,23 | 0,26 | 197 | 8,76 | 3,33 | 11,22 | 12,10 | 7,52 |
| Aceh Besar | 604 | 30.75 | 19,64 | 0,08 | 0,08 | 0,07 | 0,11 | 1.441 | 3,24 | 3,66 | 3,70 | 2,89 | 2,89 |
| Pidie | 730 | 12.75 | 57,25 | 0,08 | 0,20 | 0,08 | 0,72 | 29 | 3,18 | 4,63 | 5,62 | 1,24 | 1,49 |
| North Aceh | 852 | 23.75 | 35,87 | 0,08 | 0,08 | 0,13 | 0,69 | 773 | 3,42 | 3,43 | 3,91 | 2,67 | 3,99 |
| Simeulue | 138 | 19.50 | 7,08 | 0,37 | 0,36 | 0,87 | 3,00 | 131 | 6,89 | 6,53 | 6,53 | 8,26 | 7,66 |
| Aceh Singkil | 116 | 23.75 | 4,88 | 0,38 | 1,44 | 2,36 | 0,90 | 103 | 8,76 | 7,23 | 13,01 | 6,60 | 9,32 |
| Bireuen | 609 | 18.75 | 32,48 | 0,13 | 0,25 | 0,55 | 2,36 | 231 | 4,38 | 2,84 | 5,86 | 6,90 | 5,82 |
| Southwest Aceh | 152 | 12.50 | 12,16 | 0,17 | 0,22 | 0,33 | 0,22 | 222 | 3,89 | 3,94 | 3,76 | 4,14 | 3,78 |
| Gayo Lues | 136 | 25.25 | 5,39 | - | 0,18 | 0,33 | 0,56 | 249 | 4,74 | - | 3,59 | 6,65 | 5,07 |
| Aceh Jaya | 172 | 7.50 | 22,93 | 0,03 | 0,11 | 0,12 | 0,17 | 345 | 3,75 | 2,49 | 4,71 | 4,54 | 5,63 |
| Nagan Raya | 222 | 8.00 | 27,75 | - | 0,67 | 0,44 | 0,21 | 69 | 14,49 | - | 12,50 | 13,89 | 15,38 |
| Aceh Tamiang | 213 | 17.00 | 12,53 | 0,08 | 0,07 | 0,21 | 0,17 | 590 | 2,58 | 1,30 | 3,02 | 6,46 | 1,42 |
| Bener Meriah | 232 | 27.00 | 8,59 | 0,53 | 0,45 | 0,34 | 0,24 | 330 | 2,12 | - | 3,18 | 2,35 | 2,09 |
| Pidie Jaya | 222 | 9.00 | 24,67 | 0,17 | 0,58 | 0,55 | 0,58 | 76 | 6,16 | 6,67 | 5,33 | 5,85 | 6,84 |
| Banda Aceh City | 90 | 23.25 | 3,87 | 0,45 | 0,55 | 0,64 | 0,51 | 176 | 7,68 | 7,08 | 8,69 | 9,48 | 5,94 |
| Sabang City | 18 | 7.75 | 2,32 | 0,78 | 0,58 | 0,60 | 0,80 | 46 | 5,61 | 5,83 | 3,95 | 5,53 | 7,53 |
| Lhokseumawe City | 68 | 35.00 | 1,94 | - | - | 0,51 | 0,51 | 136 | 3,39 | - | - | 3,11 | 3,66 |
| Langsa City | 66 | 27.75 | 2,38 | 1,81 | 2,55 | 2,08 | 3,00 | 49 | 10,99 | 12,64 | 11,52 | 13,27 | 4,11 |
| Subulussalam City | 82 | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 6,496 | 420.00 | 15,47 | 0,17 | 0,21 | 0,29 | 0,38 | 6,661 | 3,96 | 3,25 | 4,31 | 4,34 | 4,07 |

Appendix 5. Comparison of OLS models

| | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 |
|--------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| Audit | 0.000244** (0.000068) | 0.000238** (0.000069) | 0.000214** (0.000069) | 0.000202** (0.000069) | 0.000209** (0.000069) |
| LocalAuditor | | -0.000167 (0.000105) | -0.000088 (0.000106) | -0.000099 (0.000105) | -0.000105 (0.000106) |
| AuditCost | | 0.000013 (0.000075) | 0.000127 (0.000077) | 0.000113 (0.000077) | 0.000129* (0.000077) |
| LDD | | | -0.034455** (0.006349) | -0.031573** (0.006299) | -0.031029** (0.006305) |
| LADD | | | 0.023758** (0.003494) | 0.021695** (0.003471) | 0.022426** (0.003470) |
| Gender | | | | -0.003195 (0.006661) | -0.004164 (0.006644) |
| EduKades | | | | 0.091006** (0.004701) | 0.091218** (0.004690) |
| BUMDes | | | | | 0.011811** (0.001690) |
| _cons | -0.561027** (0.004032) | -0.550248** (0.018195) | -0.405762** (0.082882) | -0.638490** (0.083723) | -0.667761** (0.083912) |
| N | 25291 | 24923 | 24923 | 24911 | 24911 |
| F | 448.0924 | 414.3057 | 391.7971 | 382.0185 | 371.7244 |
| r2 | 0.2574 | 0.2602 | 0.2621 | 0.2742 | 0.2755 |
| r2_a | 0.2567 | 0.2594 | 0.2612 | 0.2733 | 0.2746 |

Standard errors in parentheses

* $p < 0.10$, * $p < 0.05$, ** $p < 0.01$