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Rent-Seeking, Political Budget Cycle, and Audit Opinion: An Analysis of Local Government Spending in Indonesia

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ABSTRACT

Rent-seeking behavior is one factor associated with the poor performance of local governments in Indonesia. It is an opportunistic behavior that often occurs in the government's budget allocating process. This study aims to estimate rent-seeking size in regional governments in Indonesia based on Katz and Rosenberg's (1989) method. The determining factors used are the availability of resources and political events. In addition, as an expected control mechanism that may dampen rent-seeking size, auditing is introduced. Using the Generalized Least Square Regression method, this study employs a cross-section time-series panel dataset of 305 local governments from 2015 to 2019. There were three findings in this study: (1) there was a decreasing trend in rent-seeking size after the national election was held in 2014-2015; (2) local governments that held elections showed a tendency to have a higher degree of rent-seeking, especially when the current executives or "incumbents" were standing for election; and (3) local governments that received 'Unqualified Opinion' for their financial statements had a smaller size and allocations of the rents. Those might suggest that auditing was an effective governance mechanism to restrain opportunistic rent-seeking behavior.

KEYWORDS:
Rent-seeking; local government; unconditional transfer; election; incumbency; audit opinion

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INTRODUCTION

Many countries believe that fiscal decentralization will most likely bring many advantages, especially to the local society. The primary rationalization is that fiscal decentralization drives local governments to design more appropriate development policies according to the local needs, capacities, resources, and preferences (Brennan & Buchanan, 1980; Oates, 1993). Nevertheless, previous literature reveals that there is a negative correlation between fiscal decentralization and local government performance. Fiscal decentralization does not contribute to improving public goods provision, although the spending of capital expenditure increases in some countries (Ghozali & Khoirunurrofik, 2020). Moreover, it may also lead to a higher degree of fragmentation in political arenas and more significant procedural heterogeneity (Bierschenk & de Sardan, 2003). Another finding argues that it has been associated with creating higher inequality in low and medium-income countries (Rodríguez-Pose & Ezcurra, 2010).

Indonesia started fiscal decentralization in 2001 based on Law Number 22 of 1999 concerning Local Government and Law Number 25 of 1999 concerning Financial Balance between Central Government and Local Governments. These regulations stipulate that the central government delegates all governance authority to the local governments except for fiscal and monetary, military and defense, religion, judicial, and foreign affairs. Moreover, these laws give responsibility and authority to local governments in determining the size and structure of their budget. In addition, the political and administrative system in Indonesia consists of five layers of government: central, provinces, districts and municipalities, sub-districts, and villages. According to the Ministry of Home Affairs, until the end of 2020, there are 548 local governments in Indonesia comprising 34 provinces and 514 districts and municipalities. These figures have risen sharply compared to its initial number, notably 26 provinces and 294 districts/municipalities in 2001.

The Government of Indonesia reformed its decentralization system and democratization in 2004. The Government of Indonesia passed Law Number 32 of 2004 as an amendment to Law Number 22 of 1999 concerning Local Government, which mandated a direct election of a regional leader. This system allows nationals to directly vote for their city mayors, district heads, and provincial governors. Unfortunately, Indonesia's decentralization and direct election system have brought many problems. Indonesia Corruption Eradication Commission (Komisi Pemberantasan Korupsi, KPK) stated that until November 2020, 143 regional leaders consisting of 14 governors and 122 mayor/head of districts had been arrested due to corruption cases ever since the first direct elections took place. Other studies reveal that local elections in Indonesia are associated with corruption and money politics (Platzdasch, 2011; Mietzner, 2013). Candidates of regional leaders typically use illegal, off-budget money and on-budget funds to bribe the voters. Furthermore, much evidence shows that candidates used the district's budget to finance electoral campaigns (Mietzner, 2013). Moreover, Sjahrir, Kis-Katos, and Schulze (2013) found that local leaders tend to increase their discretional spending during the election years, especially when they also run for office.

Several arguments explain the possible reasons for the low performance of decentralization in Indonesia. Hill and Vidyattama (2016) argued that Indonesia was too early in adopting decentralization. Thus it faced many problems. In the early periods of decentralization, numerous challenges faced Indonesia, notably the impact of 1997's eco-

nomic crisis, the short transition phase from the powerful, corruptive, and centralized regime, the vacuum of institutional guidelines, and local conflicts. There was also an unstable governance system due to considerable revisions of the relationship between central and local governments in 2001. Another study argued that some local governments were not ready to implement decentralization and democratization since they lacked good resources, either revenue resources or qualified human resources (Skoufias et al., 2011). Lastly, many scholars discovered that the main possible reason for the local government's poor performance under the decentralization system is the rent-seeking behavior among local government officials (Alesina & Perotti, 1996; Cheshire & Gordon, 1998; Duflo et al., 2005; Zhang, 2006). According to Khan and Sundaram (2000), rent -seeking behavior is mainly about creating and maintaining structures that benefit from pursuing self-interest in legal or illegal ways.

Several control mechanisms to reduce the negative effect of rent-seeking behavior and its occurrence have been introduced. For instance, transparency is expected to be one of the measures to minimize rent-seeking behavior. Increasing transparency is also predicted to raise the awareness of government officials in terms of budget allocation and reduce budget misuse (DiRienzo et al., 2007). Democratic governance needs to build accountability in disclosing information about the budget and financial matters as it provides an oversight function for corruption and misuse of public resources to increase transparency (Adiputra, Utama, & Rossieta, 2018). Moreover, accountability is also defined as a proxy to exhibit the government's performance to the public (Pina, Torres, & Royo, 2010). Those controls in Indonesia are incorporated in Law Number 15 of 2004 on the Audit of State Finance. This regulation mandates that all government financial statements must be audited by the Audit Board of the Republic of Indonesia (BPK RI). Hence it will govern local governments' transparency and responsibility in using their budget to minimize the possibility of rent-seeking behavior.

Katz and Rosenberg (1989) initiated the method to measure the existence of rent-seeking behavior using the government budget. They argued that any change in the allocation of government spending indicates the existence of rent-seeking (Katz & Rosenberg, 1989). Following Katz and Rosenberg (1989), Schnytzer (1994) also Park (2007) discovered the variance in the possible size of rent-seeking regarding the political systems of the countries. However, all these existing works of literature were conducted on country-level analysis.

Indonesia has several unique circumstances in terms of decentralization. Firstly, Indonesia is considered new in democracy with a history of weak institutions and high-level corruption (McLeod, 2005). Secondly, its decentralization system comes in a 'big bang' form after the robust, corruptive, centralized regime and economic crisis. Lastly, this big bang was followed by political power shifting from centralized to decentralized in terms of local leader direct election (Sjahrir, Kis-Katos, & Schulze, 2014). Therefore, this study will estimate the size of rent-seeking behavior at the local government level in Indonesia.

This study complements this evidence on the effects of political events, especially the incumbency status, on the size of rent-seeking. Furthermore, this study also sheds light on analyzing the impact of 'auditing/audit opinions' as an expected mechanism for institutions to mitigate the ill-by-product of unproductive rent-seeking on Political Budget Cycles. It also provides the pattern of rent-seeking behavior, particularly how the actors siphon the budget allocation throughout

functions/sectors.

RESEARCH METHOD

Empirical evidence proves that rent-seeking behavior often ends up with the deterioration of local economic performance (Bhattacharyya & Hodler, 2010; Blais & Nadeau, 1992; Del Rosal, 2011; Hillman, 2013; Hillman & Long, 2019; Krueger, 1974; Mauro, 1998; Olken, 2007; Rogoff & Sibert, 1988; Schnytzer, 1994; Sjahrir et al., 2014). Furthermore, the preceding literature noted that rent-seeking behavior among local government authorities is almost inevitable. Factors that could affect the size of this opportunistic behavior include resource availability, political factors, and control mechanism.

Rent-seeking is about utilizing resources. Thus the more resources available, the higher probability of rent-seeking occurring. This evidence is also supported by prior studies, which proves that the size of rent-seeking move in the same direction with the availability of resources (Bhattacharyya & Hodler, 2010; Mauro, 1998; Tanzi & Davoodi, 2000). In the Indonesian context, local government's resources availability can be measured by sources of revenue. The local government's revenue consists of three primary sources: transfer funds from central government, local revenue in the form of local tax and levies, and revenue sharing.

Political factor is also argued as one of the determinants of rent-seeking behavior. According to the regulation, politicians can compose budget allocation and establish the location, amount, and expenditure sectors (Tanzi & Davoodi, 1997). Other studies reveal that local elections in Indonesia are allied with money politics and corruption (Platzdasch, 2011; Mietzner, 2013). There is evidence that some local governments have established budget appropriations to finance candidates in the electoral campaign (Mietzner, 2013). The last expected determinant of rent-seeking is the existence of a control mechanism. As described previously, auditing might be an effective institutional mechanism to encourage local government authorities to improve transparency, accountability, and dampening opportunistic behavior (Djankov, Porta, La, Lopez-de_Silanes, & Shleifer 2008; Olken, 2007; Pina et al., 2010; Vicente, Benito, & Bastida, 2013). In this study, a robust audit mechanism is characterized by the audit report produced by the BPK RI.

This study employed a panel data set of annual actual budget spending per allocation from 2004 to 2019 deriving from local government financial reports to estimate the rent-seeking size. The budget data is obtained from the Directorate General of Fiscal Balances, the Ministry of Finance of Indonesia's Republic. Moreover, the implementation of decentralization in Indonesia shifts some government functions from central government to local government. These functions encompass public services, education, security, health, economy, tourism and culture, environment, housing and public facilities, and social protection. This study analyzed budget revisions based on the changes in these functions. In addition, this study uses other data sources to test the hypotheses, transfer of funds, local revenue, election year and incumbency, and audit opinion.

Information regarding local government revenue sources is derived from the local government financial statement, which the Directorate General of Fiscal Balances compiles. This analysis combines unconditional transfer fund and revenue sharing as one variable, notable transfer from central government. The decision to combine variables is based on the underlying reason that local governments do not have

absolute power to determine the revenue rate, basis, and amount. In other words, the amount of these revenues is determined by the central government. This study also derived the local revenue information from the same sources, notably the annual local government's financial statement compiled by the Directorate General of Fiscal Balances. Local government revenue comes from local tax, levies, and other sources of revenue collected based on local regulations for 2015 to 2019.

The variables of political events such as the election year and incumbency information are collected through the Ministry of Home Affairs of the Republic of Indonesia and the General Election Commission. This study defined election year as to when local leaders/executives are elected in the local elections (Pemilihan Kepala Daerah, Pilkada) instead of the legislative elections (Pemilihan Legislatif, Pileg) from 2015 to 2019. The information about the election year is transformed into a dummy variable where the local election will be valued at 1; otherwise, it will be valued at 0. Furthermore, the incumbency variable contains information about the existing local executives standing for election. Incumbency statutes encompass mayors, heads of districts, governors, vice mayor, vice head of the district, and vice governors. Incumbency is also used as a dummy variable. The existence of the incumbent is valued at 1; otherwise, it is 0. However, due to limited available information, this study does not examine whether the spouse of existing local executives is also standing for elections.

Finally, this study uses audit opinion as an expected control mechanism that might reduce the size of rent-seeking behavior. Information related to the audit opinion of the local government's financial statement from 2015 to 2019 is derived from the Summary of Semester Audit Result provided by BPK RI. Moreover, this study only uses the unqualified opinion to represent robust control mechanisms for two reasons. Firstly, the auditor's best opinion reflects the local government's compliance with government accounting standards, laws, and regulations. Secondly, even though there might be a misstatement when the auditor passes an unqualified opinion, such misstatement is not considered material. Hence, it reflects the lowest level of rent-seeking activities. Presumably, the local government will reduce their rent-seeking behavior to achieve this highest audit opinion from BPK RI. The audit opinion is also transformed into a dummy variable. If a particular local government receives an unqualified opinion, the value is 1. Conversely, if the local government receives other than unqualified opinion, the value will be 0.

This study follows Katz and Rosenberg's (1989) formula, which accumulates the absolute changes of the budget composition of any budget function sector.

$$R(t) = \frac{1}{2}\sum_{i=1}^{n}\left|S(t)i - S(t-1)i\right|$$

Where S(t)i and S(t-1)i are the allocation proportions of the budget function i in years t and t-1, respectively. R(t) is the total absolute budget proportion for different areas from year t over t-1. The next step is to multiply the total of absolute changes by half (1/2) to avoid double counting. Then, the author developed a model to find the correlation between rent-seeking behavior as the dependent variable and the explanatory variables based on the hypothesis. Furthermore, the model also used some control variables such as income per capita and geographical location (Java vs. non-Java).

Moreover, this study also aims to find the pattern of rent-seeking behavior in budget allocation shown by Ri(t) as the estimated size of rent-seeking of local government i in

year t. Whereas Trf is the total transfer from central government, LR is local revenue, D_Elec is dummy variable of the election year, D-Inc is dummy variable of incumbency. D_ElecD_Inc is the interaction variable between election year and incumbency, D_Aud is the dummy variable of an unqualified audit opinion, ICP is the income per capita, and D_Java is the dummy variable of a region located in Java Island. This pattern will show how the budget actors alter the allocation of each budget function to address their opportunistic interests. Furthermore, this study also investigates the functions that are prone to be rent-seeking objects and functions that are not. This study also developed an equation for allocation proportion of the function i in years t (St(i)) to perform the analysis.

$$R_{i(t)} = \alpha + \beta 1Trf_{i(t)} + \beta 2LR_{i(t)} + \beta 3D\_ElectD\_Inc_{i(t)} + \beta 5D\_Aud_{i(t)} + \beta 5IPC_{i(t)} + \beta 5D\_Java_{i(t)} + \varepsilon$$

$$S_{i(t)} = \alpha + \beta 1Trf_{i(t)} + \beta 2LR_{i(t)} + \beta 3D\_ElectD\_Inc_{i(t)} + \beta 5D\_Aud_{i(t)} + \beta 5IPC_{i(t)} + \beta 5D\_Java_{i(t)} + \varepsilon$$

This study utilizes a panel data analysis to execute the developed model. Heteroscedasticity and autocorrelation problems occur in the dataset based on the classical assumption test. Therefore, the study then uses the Generalized Least Square (GLS) method to deal with the preceding issues suggested by Berry and Feldman (1994).

RESULT AND DISCUSSION

An Analysis of Local Governments' Budget Allocation in Indonesia

In general, the direction of the local government's policy under the decentralization system is analyzed from the budget composition. This composition directly reflects local government priorities in developing their region. Furthermore, considering that each region has unique characteristics, either natural, financial, or demographic, the proportion of budget sectors might differ from one region to another. Nonetheless, the budget actors might consider both the public needs and their interests in the budgeting process. This study aims to use population size data analysis for all local governments in Indonesia. However, not all local governments submit their report annually to the Directorate General of Fiscal Balance of the Ministry of Finance. As a result, only 305 local governments comprising 17 provinces, 50 municipalities, and 238 districts have provided a complete dataset from 2014 to 2019.

Generally, three budget functions dominate the allocation during the study period, notably public service, education, and health (Appendix 1). The public service function absorbed the highest financial allocation compared to other functions with an average of 32% (0.3164) and a standard deviation at 0.0976. This figure indicates that most of the local governments prioritized public services during the period. Furthermore, the education sector became the second-highest priority in the budget allocation with an average of 25% (0.2469) with the standard deviation at 0.1048. The average of the education sector, which was more than 20%, had fulfilled the minimum budget proportion for education as mandated in Law Number 20 of 2003 on the National Education System. The law stipulated minimum mandatory spending of 20% from the local government's total budget for the education sector. Another priority was the health sector. It absorbed an average of 14% (0.1363) of the local government's budget with a standard deviation of 0.0471. Similar to the education sector, the health sector is also categorized as mandatory spending with the minimum threshold at 10% based on Law Number 36 of 2009 on Health.

Briefly, the allocations of three sectors during the period show a regular pattern given the main function of the government is to provide public services, thus assigning the public services sector as the main priority is justified. The allocation for the education and health sector had also complied with the regulation. Nonetheless, if we focused on the annual movement of these budget functions during the period, there were significant differences in the local government's intention to allocate resources to these sectors. Since the beginning of the year in 2014, the average public services sector spending was 25%, and in the following year (2015), the allocation rose significantly to 39%. The figure then experienced a decrease to 28% in 2016 before increasing to 32% in 2017. After 2017, the average public sector allocation remained steady at 32% for two consecutive years in 2018 and 2019.

On the other hand, the average allocation of the education sector showed a different direction than public services allocation. Starting at 32% in 2014, the allocation for education plummeted to 11% in 2015. Furthermore, the number rebounded and remained stable at 26% in the following four years, from 2016 to 2019. From this condition, we can assume that an important event occurred in 2015, triggering most local governments to significantly increase spending for public service sectors while reducing the allocation for the education sector. In other words, these local governments were highly likely to shift the allocation from educational purposes to the public services sector, resulting in the government violating the law whereby education sector allocation was less than 20%. Apart from the different directions of the public service and education sector, the allocation of the health sector was relatively independent. The average allocation of the health sector during the period displayed a gradual positive movement. It started from 11% in 2014 and rose gradually by 1% per year in the following years, 12% in 2015, 13%, 14%, 15%, and 16% in 2016, 2017, 2018, and 2019.

In addition, about mandatory spending on education and health sector, an important matter occurred regarding the difference of these sectors allocation among local governments. Based on the annual data summary, it can be predicted that there was a significant gap between one local government and other local government in terms of their ability or preference to allocate the budget to education and health sectors according to the regulation. For instance, in the education sector, the minimum allocation in three initial years, 2014, 2016, and 2019, was less than 5%, while the minimum allocation of the following years, 2017, 2018, and 2019, was less than 10%. Also, in the health sector, some local governments still allocated resources less than 5% throughout the given period, 2014 to 2019. This phenomenon indicates that local governments have different strategies in allocating their budget instead of following the regulation. However, the motive of these decisions is still unclear, whether caused by limited resources, individual interest, or other possible considerations.

Further analysis has been conducted to examine the correlation and significance between budget sectors. Table 1 displays the correlation between budget sectors and their importance based on Pearson's correlation test. The calculation result shows negative and significant correlations between the three budget sectors and the education sector, with the correlation coefficient being higher than -0.5. The public service sector was negative and significantly correlated to the education sector, with the coefficient was at -0.598. The economic sector also considerably correlated in the opposite direction to education, with the coefficient was at -0.591. Moreover, the social protection sector and

education sector performed a negative and significant correlation at -0.562. This type of correlation indicated that the proportion changes in the three budget sectors (public service, economy, and social protection) would be followed by allocation changes of the education sector in an opposite direction and vice versa.

Furthermore, similar features are presented by the health and housing, and public facility sectors. These two sectors have a significant and positive correlation to the education sector. Moreover, these sectors are also indicated to have a negative correlation with other sectors. For instance, the correlation between health and public service, security, economy, housing and public facility, tourism and culture, and social protection leveled at -0.38, -0.07, -0.25, -0.13, -0.18 -0.19, respectively. Nonetheless, there was an interesting correlation between health and housing and public facility function. Although both sectors have a similar correlation with other functions, the correlation between the two was negative and significant at -0.13.

As illustrated in Table 1, Pearson's correlation test provides factual information about the changes in budget composition. Changing the budget allocation has been suggested as a sign of rent-seeking when the available resources are limited. Hence, there is a possibility that the budget actors misuse the allocation to pursue their interests instead of providing public benefit. Nonetheless, the changes in budget proportion do not necessarily result in waste or reducing social welfare.

The Estimated Size of Rent-seeking Behavior

This study applies Katz and Rosenberg's (1989) method to estimate the rent-seeking size over the budget allocation changes. This method suggests that rent-seeking can be measured by comparing the allocation of a particular budget sector in a specific year to

Table 1. Pearson Correlation Test Result

		Public Services	Security	Economy	Environment	Housing & Public Facilities	Health	Tourism & Culture	Education	Social Protection
Public Services	Corr.	1								
Security	Corr.	0.0385	1							
	Sig.	0.1331								
Economy	Corr.	0.2048	0.3560	1						
	Sig.	0.0000	0.0000							
Environment	Corr.	-0.0608	0.3206	0.2197	1					
	Sig.	0.0175	0.0000	0.0000						
Housing & Public Facilities	Corr.	-0.3519	-0.1936	-0.3294	-0.2419	1				
	Sig.	0.0000	0.0000	0.0000	0.0000					
Health	Corr.	-0.3798	-0.0747	-0.2499	-0.0079	-0.1283	1			
	Sig.	0.0000	0.0035	0.0000	0.7585	0.0000				
Tourism & Culture	Corr.	0.1086	0.3139	0.3446	0.2000	-0.1875	-0.1810	1		
	Sig.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
Education	Corr.	-0.5977	-0.3317	-0.5911	-0.1932	0.0257	0.1683	-0.3015	1	
	Sig.	0.0000	0.0000	0.0000	0.0000	0.3151	0.0000	0.0000		
Social Protection	Corr.	0.2687	0.3634	0.6423	0.2988	-0.3033	-0.1893	0.2958	-0.5621	1
	Sig.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

the allocation of the same budget sector in the previous year. Table 2 presents the estimated size of rent-seeking behavior from 2015 to 2019. The overall trend shows that rent-seeking size tends to decrease year by year, though some fluctuation occurs. The highest share of rent-seeking size existed in 2015 at 32% (0.322). This indicates that most of the local governments made a significant allocation change from 2014 to 2015. The figure then reduced to 16% (0.158) in 2016 before slightly increasing again at 28% (0.288) in 2017. Finally, the statistics seemed steady, with 6% (0.061) in 2018 and 9% (0.087) in the last observation year in 2019. There is one possible explanation as to why the size of rent -seeking was considerably large in 2015. The new regime of the central government that took power in 2014 brought new strategies to the country's development that might change the budget priority for all levels of government. However, further analysis is needed to confirm this hypothesis.

Analysis of the Local Government's Revenue in Indonesia

An increasing trend in both sources of revenue, general allocation fund, local revenue, and revenue sharing is shown in Appendix 2. However, all sources indicated a significant fiscal inequality among local governments, especially for local revenue. For example, during the observed period from 2015 to 2019, the standard deviations of local revenue were considerably high, ranging from Rp1.1 trillion to Rp1.3 trillion. Moreover, the highest local revenue reached Rp19.3 trillion in the same period, while the lowest local revenue reached Rp1.26 billion. This extreme disparity proves that the fiscal gap remains a severe problem in Indonesia.

Table 3 displays the numbers of observed local governments that held an election and the number of local leaders up for election. The number of local government-held elections was different from the total observed region, where there were 304 elections; meanwhile, based on the total observation, there were 305 elections. The discrepancy in number occurred because one of the sample

Table 3. Election Years and Incumbents

Year	Election	Incumbent
2015	146	105
2016	2	1
2017	60	46
2018	96	73
2019	0	0
Total	304	225

Table 2. Estimated Rent-seeking Based on Katz and Rosenberg (1989) Method

Budget Function	2015	2016	2017	2018	2019
Public Service	0.145	0.081	0.098	0.031	0.039
Security	0.018	0.006	0.017	0.004	0.005
Economy	0.093	0.024	0.113	0.010	0.014
Environment	0.019	0.010	0.022	0.004	0.006
Housing and Public Facility	0.110	0.074	0.085	0.034	0.045
Health	0.039	0.032	0.043	0.019	0.027
Tourism and Culture	0.012	0.004	0.012	0.002	0.003
Education	0.184	0.079	0.161	0.017	0.032
Social Protection	0.024	0.006	0.025	0.002	0.004
Estimated Size of Rent-seeking *	**0.322**	**0.158**	**0.288**	**0.061**	**0.087**

**total rent changes per year multiplied by 0.5*

regions, the Special Region of Yogyakarta, has a unique decentralized system. This region follows a monarchy system, with the Sultan carrying the role of governor and not elected by the public.

In addition, most regions held their local elections in 2015, whereas no local election was held in 2019 due to the presidential election held in that same year. Furthermore, more than 50% of the local election involved existing region heads or incumbents. As predicted before in the previous descriptive analysis, there was an increase in rent-seeking activities in 2015 while the local election also peaked. It can be assumed that the election and incumbents triggered the significant size of rent-seeking in 2015.

An Audit examination can be a credible source for assessing local government's financial performance and reducing budget holders' opportunistic behavior bearing in mind the strong possibility of being captured and punished under the applicable law. The increasing number of local governments obtaining an Unqualified Opinion from BPK, as seen in Table 4, indicates an improvement in local government's accountability from 2015 to 2019. Receiving Unqualified Opinion proves that the financial statement is free from material misstatement and complies with regulations. Furthermore, since 2016, the local government's financial statement has never received Adverse Opinion.

Table 4. Audit Opinion of Local government's Financial Statement 2015-2019

Year	Unqualified	Qualified	Adverse	Disclaimer
2015	194	97	2	12
2016	229	67	-	9
2017	246	53	-	6
2018	266	35	-	4
2019	280	23	-	2

Source: BPK RI (2020)

Interestingly, the number of local governments that failed to achieve the unqualified opinion peaked in 2015. This figure is consistent with the previous assumption that the highest level of rent-seeking occurred in that year. Thus, it can be assumed that the high level of rent-seeking behavior in 2015 resulted in inappropriate disclosure of financial statements captured by the auditor. This evidence strengthens the claim that audit plays a significant role as an effective mechanism to dampen rent-seeking behavior.

The estimation in Table 5 shows the impact of transfer funds, local revenue, an election year, incumbency, and audit opinion on the size of rent-seeking behavior. It shows that local revenue, an election year, and incumbency positively impact the size of rent-seeking behavior, while transfer fund and audit opinion have negative influences. Furthermore, Table 6 shows the impact of each explanatory variable on the size of rent-seeking in each budget function.

The findings demonstrate that unconditional transfer fund (general allocation fund and revenue sharing) does not significantly affect the size of total rent-seeking. It indicates that the local government did not utilize transfer funds as resources for rent-seeking behavior. It also contradicts Mauro (1998), who claims that local governments abuse their power to use resources to gain personal benefits. However, unconditional transfer fund is significantly correlated with rent-seeking size in education and social protection sectors. One possible explanation of this finding is that when the transfer fund increases, it might be distributed proportionally to all the budget sectors except the education and social protection sectors. Another reason why the local government did not exploit transfer funds for individual interest is because transfer funds are treated as the primary source of income. Hence local governments aim to secure the sustainability of the resources.

The results show that the more local revenue is collected, the smaller the size of rent-seeking occurs. This result confirms the findings of previous studies that argue decentralization as one possible way to reduce opportunistic behavior as it allows the public to supervise and control local governments policies (Brennan & Buchanan, 1980; Faguet, 2004; Rodríguez-Pose & Ezcurra, 2010; Stansel, 2005; Xie et al., 1999). Moreover, this finding also demonstrates that local governments are more careful in spending the revenue from local sources. Local governments might have already determined a specific allocation of the local revenue to show off their performance to the public, such as sectors that rarely receive allocations from central government transfer. This rationality is supported by the regression result of each budget sector, as illustrated in Table 6. The table presents the different magnitude of local government impact on rent-seeking between total rent-seeking and rent-seeking in each budget sector. Based on the result, local revenue only significantly affects rent-seeking size in the economy and tourism sector. These two sectors are rarely targeted by central government grants but might be beneficial to attract local citizens' attention.

On the contrary, the budget holders of local governments tend to use their authority in

Table 5. GLS Regression Results of the Impact of Each Variables on the Size of Rent-Seeking Behavior

Variables	Test 1		Test 2	
	β Coefficient	Significance	β Coefficient	Significance
Intercept	0.2151575	0.000	0.2209368	0.000
Transfer Fund	-0.0014816	0.835	0.0031242	0.677
Local Revenue	0.0058169	0.088	0.0049862	0.144
Election Year	0.0638128	0.000	0.063921	0.000
Election Year x Incumbency	0.0536865	0.000	0.0531545	0.000
Audit Opinion	-0.0550075	0.000	-0.0526441	0.000
Income Per-capita			-0.0002578	0.000
Java/non-Java			-0.0010077	0.899

Table 6. GLS Regression Results of the Impact of Each Variables on Rent-Seeking Behavior in Each Sectors

Budget Functions	Intercept	Transfer Fund	Local Revenue	Election Year	Election Year x Incumbency	Audit
Public Services	0.0924***	0.000824	0.00613**	0.0275**	0.0252***	-0.0272***
Security	0.0122***	-0.000459	0.000468	0.00427**	0.00341***	-0.00358***
Economy	0.0610***	-0.00497	0.00572***	0.0273***	0.0199***	-0.0150***
Environment	0.0146***	-0.00247**	0.000172	0.000271	0.00287*	-0.000818
Housing and Public Facilities	0.0924***	-0.00803*	-0.00137	0.0231**	0.0107*	-0.0220***
Health	0.0391***	-0.00297	0.000736	-0.000987	0.000489	-0.00588**
Tourism	0.00709***	-0.00138*	0.00179***	0.00364**	0.00236**	-0.000544
Education	0.0934***	0.0192***	-0.00278	0.0365***	0.0368***	-0.0293***
Social Protection	0.0181***	-0.00276***	0.000778*	0.00602***	0.00557***	-0.00575***

*Statistical significance = * p<0.05, ** p<0.01, *** p<0.001*

creating local budgets to gain political benefits. In the election year, the size of rent-seeking increased significantly. The budget holders primarily utilized the three sectors were the economic, education, and social protection sectors. This evidence supports Skoufias et al. (2011) argument that the election directly contributes to the spending in education sectors. Moreover, the high impact of the election on social protection is consistent with Sjahrir et al. (2013), which discovered a significant increase in social protection spending during the election year. In addition, this result also supports Delavallade's (2006) investigation that corruptive governments often distort their spending away from social expenditures such as education and social protection. She argued that these kinds of spending might provide less opportunity for embezzlement.

This study also revealed that the size of rent-seeking was even more prominent when existing local leaders or incumbents also stood for election. This did not only significantly affect the economy, education, and social protection sectors, but the incumbency factor also increased rent-seeking size in public services and security sectors. This finding is consistent with Drazen and Eslava (2010), who examine the changing budget composition during the election. They argued that incumbents might try to attract voters by changing spending instead of the overall budget. Their study use the terminology of "pork-barrel spending," which is associated with a specific budget to influence voters to heighten incumbent electability. This evidence also confirms Ferraz and Finan (2005), who highlight the tendency of politicians to compose budgets based on political interest, especially during the election year. Moreover, the budget holders tend to deliver goods and services that meet the preference of the targeted voters.

Lastly, we found that the audit report significantly reduced the occurrence of rent-seeking behavior. This result confirms the hypothesis developed in this research noting that auditing negatively affects the size of rent-seeking. This finding also supports the role of auditing as an expected mechanism to dampen the possibility of opportunistic behavior. Furthermore, concerning the analysis on each sector's impact, all sectors are negatively affected by the audit opinion, and six out of nine are significantly affected. Consistent with Djankov et al. (2008), this result indicates an improvement in local government eagerness to be more transparent and accountable. Hence, the more a local government can provide transparency and accountability, the better audit opinion it can receive from the auditor, and the less likely it is to induce opportunistic behaviors.

CONCLUSION

The findings of this study show that there is no correlation between unconditional transfer funds and the size of rent-seeking at the aggregate level. However, unconditional transfer funds significantly correlate with the education and social protection sectors. The more funds transferred from the central government, the higher the probability of rent-seeking in education sectors. Conversely, the more transferred funds are received, the lower the rent-seeking to occur in the social protection sector. After that, local revenue negatively affects the accumulative size of rent-seeking behavior at a low significance level. This result contrasts with the findings of several previous research claiming that decentralization provides the opportunity for the public to control local government, limiting the possibility of rent-seeking behavior. Interestingly, further analysis of each budget function indicates that local revenue positively correlates with economic and tourism functions.

During the election year, the size of rent-seeking became enormous. This finding confirmed the previous researchers who learned that politicians often used their authority to alter budget allocation based on their political interests. This claim is strengthened because rent-seeking became increasingly predominant when an incumbent region head was up for election. Moreover, further analysis on rent-seeking in each sector reveals that election year significantly increased rent-seeking behavior in three out of nine sectors, notably economic, education, and social protection sectors. The effect was more massive if there were running incumbents, causing the affected sector to increase from three to five out of nine sectors such as public service, security, economic, education, and social protection sectors. Lastly, the results confirm that auditing is an effective control mechanism to dampen the size of rent-seeking in local governments in Indonesia. This claim is consistent with the empirical analysis result of rent-seeking in each budget sector. Rent-seeking in almost all budget sectors was significantly affected by audit opinion in a negative direction.

This study gives insights into the estimated size of rent-seeking and sectors that are prone to rent-seeking behavior. Opportunist budget holders often utilize funds already allotted for public services, economic, education, and social protection sectors for other purposes. As a result, the control mechanism should be strengthened in these sectors. The election is also a possible factor in the increased size of rent-seeking behavior. This study suggests that auditors (BPK) make extra efforts to examine local government spending during the election year and pay more attention to the sectors that are significantly affected by the election. Moreover, the government must put more effort, particularly when the incumbent also stands for elections. On top of that, the central government, such as the Ministry of Finance and Ministry of Home Affairs, must closely supervise and monitor local governments over the use of their local budget.

Nevertheless, this study only provides analysis concerning the input side of rent-seeking behavior. Further research is required to examine the net impact of rent-seeking behavior. This is vital considering there is a possibility that rent-seeking behavior results in a positive net impact or improves social welfare. This study only determines local governments' authority as rent-seeking actors. Further analysis on the patronage structure of rent-seeking at the local government level in Indonesia might be beneficial to design effective policies to maximize the net benefit of rent-seeking.

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APPENDICES

Appendix 1. Summary of Local Government Spending Allocation per function (2014-2019)

Year		Public Services	Education	Security	Health	Economy	Tourism and Culture	Environment	Housing and Public Facility	Social Protection
2014	Mean	0.2532	0.3196	0.0132	0.1129	0.0912	0.0068	0.0190	0.1683	0.0158
	Max	0.8562	0.5381	0.1815	0.2933	0.2571	0.0850	0.1216	0.5449	0.0538
	Min	0.1195	0.0014	0.0000	0.0071	0.0249	0.0000	0.0000	0.0000	0.0000
	Std. Dev	0.1128	0.1209	0.0124	0.0389	0.0346	0.0071	0.0171	0.0772	0.0084
2015	Mean	0.3895	0.1114	0.0288	0.1166	0.1755	0.0173	0.0329	0.0893	0.0388
	Max	0.5904	0.5430	0.1159	0.2840	0.3907	0.2018	0.1294	0.3543	0.0899
	Min	0.1563	0.0255	0.0055	0.0367	0.0431	0.0000	0.0000	0.0000	0.0000
	Std. Dev	0.0691	0.0533	0.0131	0.0364	0.0472	0.0191	0.0223	0.0525	0.0155
2016	Mean	0.2841	0.2561	0.0116	0.1339	0.0796	0.0067	0.0149	0.1943	0.0148
	Max	0.7273	0.5773	0.1386	0.3428	0.2541	0.0477	0.0828	0.5377	0.0672
	Min	0.0364	0.0051	0.0010	0.0336	0.0035	0.0000	0.0000	0.0150	0.0000
	Std. Dev	0.0985	0.0993	0.0101	0.0475	0.0324	0.0064	0.0129	0.0778	0.0090
2017	Mean	0.3180	0.2668	0.0142	0.1424	0.0635	0.0067	0.0159	0.1578	0.0142
	Max	0.6454	0.4712	0.2009	0.3929	0.2249	0.0826	0.1742	0.4247	0.0437
	Min	0.0479	0.0555	0.0000	0.0165	0.0000	0.0000	0.0000	0.0000	0.0000
	Std. Dev	0.0858	0.0723	0.0155	0.0474	0.0249	0.0077	0.0204	0.0555	0.0068
2018	Mean	0.3248	0.2664	0.0144	0.1510	0.0639	0.0069	0.0153	0.1425	0.0146
	Max	0.6112	0.4682	0.1451	0.3873	0.2315	0.0683	0.1311	0.4446	0.0494
	Min	0.0494	0.0624	0.0000	0.0160	0.0241	0.0000	0.0000	0.0009	0.0031
	Std. Dev	0.0793	0.0685	0.0111	0.0453	0.0244	0.0076	0.0165	0.0540	0.0073
2019	Mean	0.3290	0.2610	0.0139	0.1610	0.0630	0.0083	0.0158	0.1333	0.0145
	Max	0.6532	0.4862	0.1473	0.3818	0.2308	0.0724	0.1830	0.4500	0.0747
	Min	0.0930	0.0683	0.0000	0.0266	0.0264	0.0000	0.0000	0.0042	0.0000
	Std. Dev	0.0763	0.0631	0.0106	0.0465	0.0262	0.0079	0.0198	0.0554	0.0073
Total	Mean	0.3164	0.2469	0.0160	0.1363	0.0894	0.0088	0.0190	0.1476	0.0188
	Max	0.8562	0.5773	0.2009	0.3929	0.3907	0.2018	0.1830	0.5449	0.0899
	Min	0.0364	0.0014	0.0000	0.0071	0.0000	0.0000	0.0000	0.0000	0.0000
	Std. Dev	0.0976	0.1048	0.0135	0.0471	0.0515	0.0110	0.0195	0.0708	0.0131

Appendix 2. Local Government's Source of Revenue

(In million Rupiah)

Year		General Allocation Fund	Revenue Sharing	Local Revenue
2015	Mean	653,498.08	198,323.31	309,617.91
	Max	1,613,161.78	4,301,268.09	15,402,647.67
	Min	0.00-	14,410.45	3,452.15
	Std.Dev	287,288.18	359,209.45	1,038,367.09
2016	Mean	714,138.42	204,075.62	325,068.61
	Max	1,709,892.85	3,318,730.71	15,817,795.02
	Min	111,881.56	17,811.02	7,538.51
	Std.Dev	298,564.73	323,654.81	1,069,033.78
2017	Mean	731,750.17	196,898.75	395,935.98
	Max	3,803,428.37	2,270,148.70	17,324,177.66
	Min	141,994.12	16,345.44	1,969.11
	Std.Dev	371,309.90	279,801.21	1,185,898.93
2018	Mean	736,316.27	229,562.63	392,365.97
	Max	3,813,411.93	2,876,925.43	18,531,062.02
	Min	215,830.01	16,910.58	1,266.09
	Std.Dev	370,504.67	367,728.31	1,270,657.70
2019	Mean	767,314.32	267,758.00	419,701.05
	Max	3,998,431.72	4,959,431.33	19,327,125.49
	Min	233,360.41	15,785.73	2,591.92
	Std.Dev	387,774.76	498,547.45	1,333,182.17
Total	Mean	720,603.45	219,323.66	368,537.90
	Max	3,998,431.72	4,959,431.33	19,327,125.49
	Min	0.00-	14,410.45	1,266.09
	Std.Dev	347,195.80	373,536.98	1,184,079.50