

The Effects of Specific Allocation Fund (DAK) on Local Economic Development: A Mixed Method Analysis on Central Java Province, Indonesia

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Abstract:

The management of the Specific Allocation Fund (DAK) requires good governance. This argument seems logic based on the claim of some studies that there are problems in planning and implementation in DAK policy. Thus, the benefit of DAK on local economic development can be debatable. This study tries to examine the relationship between DAK and local economic development in 35 districts/cities of Central Java Province over the period 2010 – 2014. In addition, a case study on how DAK policy is planned and implemented at the district and provincial level is investigated. The econometric results show that DAK in education and health, trade infrastructure and supporting facilities, as well as infrastructure and transportation sector give a significant contribution on a rise in growth and a decrease in the number of poor people, respectively. However, qualitative analysis indicates that the good governance practices only take place on the planning and implementation aspect of DAK in infrastructure sector, though elite capture is still a major hindrance in its allocation process.

Keywords: DAK; local economic development; governance; Indonesia

JEL Classification: H720; H830; O110

Introduction

National development is the efforts undertaken by the government with the participation of all components of the nation in order to attain the aspired goal of a country. It is a means for achieving the welfare of the whole society. One strategy to gain benefit for such development is by improving local government capacity and by empowering local communities in the process of regional development through the implementation of decentralization and regional autonomy policies.

Recently, the central government of Indonesia has ratified Law No. 23/2014 on the Local Government (LG), where each of LG is granted an authority to regulate and to manage the interests of their community. Along with these policies, fiscal decentralization is also applied through the ratification of Law No. 33/2004 on the

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Financial Balance between the Central Government and Local Government, which are designed to increase the financial capacity of every local government.

The implementation of fiscal decentralization in Indonesia is basically funded by the Local Budget (APBD). However, since local own-source revenue (PAD) in most of local governments is very limited, the central government uses the mechanism of intergovernmental fiscal transfers such as balance funds, consisting of the Revenue Share Fund (DBH), the General Allocation Fund (DAU) and the Specific Allocation Fund (DAK). In principle, they should be viewed as a whole unified because these three components complement each other.

DBH, sourced from the State budget (APBN), is allocated to the regions with a certain percentage based on the producing region to finance the local needs in the context of decentralization. Type of government revenue that has been distributed in the state budget includes several types of tax and natural resources which are managed by the central government. The characteristic of the transfer is a block grant, which gives a full discretion in accordance with the potentials and needs of the region. Overall, the main purpose of such grant is to reduce the vertical fiscal imbalance between central and local government. Meanwhile, due to the discrepancy in fiscal capacities among local governments, DAU is aimed to address the problem of horizontal fiscal imbalance among sub-national governments. Such discrepancy comes from differences in capacity of local governments to generate their own-source revenue and shared-revenue. Similar to DBH, the characteristic of DAU is a block grant.

Moving to DAK, nowadays, there are several key concepts that have several implications for the implementation of policies in the management of DAK, as follows: First, DAK is a fund sourced from APBN and therefore, the determination of DAK allocation is discussed and agreed by the central government and the National Parliament during the State Budget Draft discussion each year; Second, DAK is only distributed to certain regions. Accordingly, further policies are required to determine the regions receiving DAK under the general, specific, and technical criteria; Third, DAK is allocated to finance specific activities that should in line with the national priorities and the local affairs. Those who receives DAK are required to provide matching funds (e.g. at least 10% of the total allocation).

Since its introduction in 2001, DAK has experienced a tremendous growth in the allocation and the coverage of sectorial activities. In the former, the total transfer of DAK to the regions in 2013 experienced a significant increase, *i.e.* 13 times more than in 2003. Similar condition also occurred in DAK sectors, where it initially only focused on few sectors such as Education, Health, Road Infrastructure and Irrigation, as well as Governmental Infrastructure. In 2013, it increased almost four-fold, to 19 DAK sectors in 2013. With such situation, the development of DAK sector is becoming inseparable from the dynamics of the potential and the problems in the regions, as well as the changes in policies at the central level.

If explored further, the annual DAK allocation is given mostly for Education sector which accounts for 35% of the total DAK allocated to the regions, followed by Road Infrastructure (17%) and health (10%). Meanwhile, the smallest composition in the total allocation of DAK is for Housing and Settlements, Land Transportation Safety, and Rural Transportation. Apart from this dynamic picture, DAK as a component of balance fund is actually not a substantial fund. In 2013, the total DAK was only accounted for 7.3% of the entire Regional Budget. In this case, DAK was accounted for 2.9% of the Provincial Budget and 8% of the District/City Budget, respectively.

Although DAK retains the smallest portion in APBD, it can be viewed as an equalization instrument to boost local capital expenditure since DAU and DBH are mostly used for the employee expenses (SMERU, 2008). In line with this argument, the World Bank's (2007) findings showed that largest expenditure for local government is for government administration, which constitutes 38% of total expenditure at the provincial level and 30% at the district/city level. As DAK is expected to generate a rise in local capital expenditure, following Solow's growth model approach, this leads to better local economic development. However, recent studies show that governance in the DAK policy should be considered seriously by all stakeholders at both national and local level in a bid to give a real economic benefit to community (see SMERU, 2008, Bappenas, 2011, MoHA, 2013).

Since DAK is a part of a grand design of fiscal decentralization policy along with revenue and expenditure assignment, sub-national debt/borrowing, and other intergovernmental transfers, several scholars attempt to investigate the effect of fiscal decentralization on economic development. However, the result is far from conclusive, depending on the unit of analysis.

In the case of fiscal decentralization – growth nexus, Davoodi and Zou (1998) showed that there is a negative and significant relationship. While, Woller and Phillips (1998) found that there is no significant evidence in their cross-country studies. Similar results are found in the case of Indonesia, either using full sample of provinces (Aisyah 2008) or single province analysis (Elida 2013). With regards to fiscal decentralization and poverty relationship, Sepulveda and Martinez-Vazquez (2011) found that fiscal decentralization is positively and

significantly correlated with poverty measures. In Indonesia, Booth (2003) showed that fiscal decentralization is negatively and significantly correlated with poverty.

All of empirical studies mentioned above whether in the form of cross-country studies or a single-country analysis do not clearly explain the characteristic of intergovernmental transfers in their fiscal decentralization indicators. Also, they do not critically analyze how fiscal decentralization is more effective to contribute to the growth and poverty with good governance. Based on description above, this study tries to analyze the relationship between DAK and Local Economic Development in 35 districts/cities within Central Java Province in the period 2010 – 2014. Since governance data are not available at the sub-national level, we use qualitative analysis to complement econometric findings. We argue that the results can be explained to a large extent by looking how DAK policy is planned and implemented at districts/cities and provincial level. Concerned with the scope of study, obtaining qualitative information at all districts/cities in Central Java province will be costly. Therefore, a case study approach is chosen to sharpen the analysis.

1. Literature review

In general, there are two types of transfer from central governments to lower tiers of governments, where each has a different impact in the provision of public services and social welfare (Bahl and Linn 1994). An intergovernmental transfer is called as a block grant transfers if it is transferred without any conditions of use from the grantor. Meanwhile, if the use of the transfer is made after the determination of a specific program, then this type of transfer is categorized as a specific transfer. In this case, DAK in Indonesia is naturally a specific grant.

Furthermore, Shah and Mundial (1994) shed the light on the characteristic of specific transfer. He stated that if the basic public services and the welfare of society is a national priority but not a top priority at local level, then the specific transfer with non-matching grant is the best. However, as DAK is intended as a stimulus, it usually requires matching fund. From here, the discussion can be expanded into whether the matching grant should be open-ended or closed-ended. He then asserts that specific transfer with open-ended matching grant is suitable for correcting inefficiencies in the financing of public facilities, and for increasing spillover effect to communities outside the allocated regions. The fact that local governments in Indonesia have allocated closed-ended matching grant which accounts for 10% of total allocation from their budget is very contradictory with principle of fairness, particularly for region with low fiscal capacity. This will raise anxiety whether local governments with such fiscal capacity can deliver public service to their communities. Such phenomenon is understandable since they are already unable to cope with existing economics problems such as high poverty and unemployment rates.

Moving from theoretical of fiscal transfer, so far there are few studies that examine various aspects of DAK, although none has reviewed in detail the role of DAK in local economic development. SMERU (2008) found that DAK technical guidelines (Juknis) issued by the supervising Ministry/Institution at the central level are often belatedly distributed and do not fit in with the schedule of planning and budgeting in the regions. Furthermore, they reveal that the central government is not transparent in formulating the allocation, so that local officials need to lobby each ministry/institution in order to obtain a larger DAK allocation. In the aspect of monitoring and evaluation, most of local governments barely give a report on the use of their DAK. In line with SMERU's findings, Bappenas (2011) indicated that DAK does not contribute significantly to the objectives (outcomes and impact) of national development that include economic growth and HDI with its key variables. Thus, the planning of DAK should be implemented in a more bottom-up style, which integrates DAK into the planning cycle at the national and local level simultaneously.

While previous studies emphasize the problems of DAK at planning and implementation level, recently Ministry of Home Affairs (2013) tried to disentangle such problems at wider dimensions. For example, on the planning level, decision-making and allocation of DAK for each region are top-down where Regional Development Planning Board (Bappeda) as a key institution at local level is not involved in the planning of programs/activities funded by DAK. On the aspect of budgeting, the 10% matching grant of DAK encourages not only commitment of local governments to involve in achieving national priorities and local affairs, but it also creates disincentive for some regions with a lower fiscal capacity to provide such closed-ended matching grants. Meanwhile, problem of DAK implementation is related to the change and rigidity of Juknis during the implementation period. On the aspect of monitoring and evaluation, clearly both central and local governments cannot properly coordinate each other and implement a periodically monitoring and evaluation program.

Albeit DAK have several drawbacks as mentioned above, each local government within decentralization framework must have financial resources (e.g. from own-source, intergovernmental transfer, to even sub-national borrowing) to provide public services and to ensure welfare to their people. Such thinking is in line with fiscal

decentralization concept formulated by de Mello (2000). Accordingly, it refers to transfers or delegates the sources of income and expenditure to the regions by reducing government bureaucracy. Aside from this argument, it essentially allows local governments to provide public goods that better match local preferences than the national government since they have better access to local information (Hayek 1945). Also, one could argue that it can enhance participation, transparency, and accountability in decision-making process (Putnam 1993). Despite these benefits, decentralization is at risk to fall into efficiency due to corruption and local capture. This is due to fact that local governments are less intensely monitored than central government (Bardhan and Mookherjee 2000).

Regardless the pros and cons on decentralization, clearly the conceptual foundation of fiscal decentralization can be traced back from the framework of fiscal federalism theory. This theory is divided into two perspectives, namely the traditional or first-generation theory and new perspectives or second-generation theory. In the first-generation theory, Tiebout (1956) can be an entry point to explain efficiency argument. He introduces the dimension of competition amongst local governments on the allocation of public expenditure that enable people to move freely to choose a variety of public goods and services that suit their preferences. Here, only central government can satisfy the uniform level of provision of public good and services. Such a strong assumption lies throughout the framework of the first-generation theory. However, as each region in larger and more heterogenous countries has different preferences, such provision becomes inefficient and potentially creates conflict. In addition, this theory does not emphasize on how local governments' ability to generate their own-source revenue. Also, this theory does not explain the link between central government and local government through intergovernmental transfer and how such transfer creates disincentive effect on local government.

Meanwhile, the second-generation theory, built based on Musgrave's (1959) and Oates's (1972) framework, put more emphasize on the importance of revenue and expenditure assignment amongst levels of government. This theory explains how fiscal decentralization affects the behavior of local governments. It is based on two mechanisms for aligning the interests of local governments with economic prosperity. Accordingly, in the state where the market for goods and services are highly mobile, the competition among local governments is an important incentive tool for the provision of public services. Such competition will stimulate economic growth in the regions. Also, in this theory, the close linkage between local revenues and expenditures can also be an incentive for local governments to improve the economic prosperity of the regions. However, intergovernmental transfers from central government will lead to disincentive for local governments to increase their local revenues.

To sum up, the main differences of the two theories lie on their view on own-source revenue and intergovernmental transfer. In principle, the link between revenues and expenditures assignment in APBD as well as the contribution of intergovernmental transfers on local revenue will create incentives for every local government to implement economic reform, which in turn, lead to better social welfare. As a part of intergovernmental transfers, the characteristic and dynamic of implementation of DAK in Indonesia is interesting to be examined.

2. Methodology

In this essay, the role of DAK on local economic development will be investigated. Concerning the scope of the study, we will use a case study approach in the province of Central Java. Yin (2009) argues that a case study is an empirical inquiry that examines a contemporary phenomenon within its real-life context. This is particularly useful when the boundaries between phenomenon and context are not clearly evident. Here, Central Java consists of 35 districts and cities, which is the second largest behind East Java in terms of number of government lower tiers. Also, amongst other provinces in Indonesia, Central Java receives a quite big proportion of DAK, the second highest behind Papua.

To reach the objective of essay, this study will employ both qualitative and quantitative method. The author uses sequential explanatory strategy, which is characterized by the collection and analysis of quantitative data in the first phase of research, followed by the collection and analysis of qualitative data in the second phase that is built on the results of the quantitative analysis (Creswell, 2009). Overall, the research activities have lasted for 6 (six) months, started from May 2017.

On the qualitative method, we acquire information by using semi-structured interviews and focus group discussion (FGD). Since Central Java province consists of 35 districts/cities, we will not collect the qualitative information from all districts/cities. Instead, we will focus on stakeholders in the District of Pemalang since this region is categorized as best reporting by Ministry of Home Affair as (MoHA 2013). The first method, semi-structured interviews, is chosen to allow new ideas to be brought up. Basically, any type of interview can catch

historical information and personal opinion (Creswell 2009). In relation to our research, interviews have been implemented at three different layers, namely national, provincial, and district. Relevant government officer at Directorate of Regional Development (Ministry of Home Affairs), Directorate of Balancing Fund (Ministry of Finance), Directorate of Regional Autonomy (Ministry of National Development and Planning), and member of House of Representatives at Commission XI (Finance) has been the key informants of our research at the national level since they all directly involved in the allocation process. In addition, local and provincial government apparatus at Regional Development and Planning Unit (Bappeda), as well as member of Local Parliament were interviewed to capture specific information about planning and implementation aspect in DAK at sub-national level. Last, we conducted some interviews with local communities, the important element that should not be neglected, since they are the object of development.

The second method important in this research is FGD. It is very common in social research to collect general information from different perspective (Creswell 2009). As this method emphasizes perceptions amongst people who share relatively same point of view, such method can be useful to explore general information on planning and implementation of DAK in Central Java, Indonesia among key bureaucrats, NGOs, and communities. Such general information can be a baseline to capture more detailed and specific information when we conduct semi-structured interviews. To sum up, for the qualitative part, we have implemented a total of 3 FGDs and 10 interviews to ensure that triangulation process in obtaining information is valid.

On the quantitative method, it will be focused on econometric analysis. In measuring local economic development (LED) equation, our dependent variable of LED is approximate by the annual growth of Gross Regional Domestic Product (GRDP) (Y_t), and the number of poor people (Y_2), which are all taken from Regional Income Account compiled by BPS. The following a simple baseline panel model will be used as follows:

$$LED_{it} = \alpha_0 + \alpha_1 DAK_{it} + \varepsilon_{it} \quad (1)$$

where: the subscripts i denotes the 35 districts/cities in Central Java province; t denotes the year of observation, which is 2010 – 2014; ε is the corresponding disturbance term; α_1 is our main variable of interest which measures the impact of the degree of DAK on local economic development.

To capture the degree of DAK, we use share of sectorial DAK on total DAK. Here we map the contribution of several sectors such as: education and health sector (X1); housing and food sector (X2); marine, fisheries, environment, and forestry sector (X3); local government infrastructure and transportation sector (X4); as well as trade infrastructure and supporting facilities sector (X5) on total allocation of DAK that districts/cities received.

Since we want to capture individual-specific effects model allowing each cross-sectional unit to have a different intercept term, the α_0 is random variables that capture unobserved heterogeneity. Also, in this model, we need valid assumption of strong or strict exogeneity such that $E(\varepsilon_{it} | \alpha_i, x_{i1}, \dots, x_{iT}) = 0$, $t = 1, \dots, T$, so that the error term is assumed to have mean zero conditional on past, current, and future values of the regressors. However, the preliminary chow test shows that pooled least square is an appropriate model. Thus, there is no need to use fixed-effect in the model.

3. Results

On the first model, it can be seen that only DAK in education and health (X1) as well as trade infrastructure and supporting facilities (X5) sector give positive and significant impact on the increase in GRDP growth (Y_1). On the contrary, in spite of a positive effect in DAK of housing and food (X2), marine fisheries, environment and forestry (X3) and local government infrastructure and transportation (X4), its effect on the increase of growth can be ignored (see Table 1).

Table 1: Prediction model of annual growth in GRDP (Y_1)

Variable	Baseline Model
X1	0,008* (0,004)
X2	0,009 (0,110)
X3	0,013 (0,014)
X4	0,007 (0,007)
X5	0,020* (0,001)

Variable	Baseline Model
F	3,052*
R ²	37%
N	165

Note: No. of parentheses are robust standard error; * = significant at 5 % level

On the second model, of the five predictor variables, only DAK in infrastructure and transportation sector (X4) significantly affects the decrease in the number of poor people (Y2). Meanwhile, DAK in education and health (X1), housing and food (X2), marine, fisheries, environment and forestry (X3), as well as trade infrastructure and supporting facilities (X5) sector does not have any significant impact to reduce poverty (Y2).

Table 2: Prediction model of Poverty (Y2)

Variable	Baseline Model
X1	0,007 (0,080)
X2	0,029 (0,022)
X3	0,003 (0,028)
X4	- 0,044* (0,014)
X5	0,002 (0,002)
F	3,913*
R ²	43%
N	165

Note: No. of parentheses are robust standard error; * = significant at 5 % level

From these two models, clearly DAK in education and health, trade infrastructure and supporting facilities, as well as infrastructure and transportation sector give a significant contribution on a rise in growth of GRDP and a decrease in the number of poor people, respectively. Such findings are somewhat surprising during our fieldwork in which we gathered qualitative information from relevant stakeholders at both local and national level.

On the planning aspect, except for DAK in infrastructure sector, most of respondents agree that the central government is not transparent in the allocation process. Due to this condition, elite capture practices take place in which some local governments can sway the policy of central government (e.g. either lobbying with stakeholders at Ministry of Finance, Technical Ministries, or both) to obtain or even to increase DAK allocation in their region. Apart from “direct interventions” from the Mayor and the Regents, head of local government units (SKPD) at district and provincial level, member of Local (district) and National Parliament can also influence DAK allocation (for similar discussion, see Sugiyanto *et al.* 2018).

Such elite practices can distort the determination of DAK allocation. According to the law and regulations, regions can only receive DAK on the fulfillment of three criteria: (1) general criteria based on the local fiscal capacity; (2) specific criteria based on local characteristics such as borderland areas, disadvantaged areas, littoral areas, disaster-prone areas, food-security areas, potential-tourism areas, and specific autonomy areas; and (3) technical criteria based on technical aspect from ministerial and agency that receive an authority to allocate. With these characteristics, regions which do not fulfill all three criteria cannot receive DAK. However, in practice, such criteria cannot be interpreted as a screening instrument, instead they overlap one another. In this case, a region which is not feasible in terms of general criteria can pass in terms of specific criteria. Likewise, a region which is not feasible in terms of specific criteria can succeed in terms of technical criteria. In other words, these criteria seem to be treated as an alternative to other criteria. Consequently, to obtain DAK, a region needs to pass any of these three criteria.

Moreover, although our respondents state that the formula of DAK allocation is recently disseminated at local government stakeholders, in which the specific criteria accounts for 80%, while the rest respectively accounts for 10%, such formula is very complex to be implemented due to the length of the counting process and the vulnerability of data requirements. In practice, aside from elite capture, political motivation still dominates the allocations process, which hampers the effectiveness of DAK allocation where it is supposed to reach those most in need. This is based on the fact that such process involves the discussion in the state budget between central

government and the National Parliament at Commission XI (Finance). One could argue that this formula can theoretically be predicted. In fact, most of respondent's state that the allocation and location of DAK sectors is totally unpredictable. In some cases, the allocation and location of DAK sectors in the previous year cannot even be relied upon as a prediction tool for the allocation and location in the next year period. Such condition leads to a phenomenon where the allocation of DAK sectors is often not based on the local needs. It can also disrupt the agenda of local governments, where they might be forced to face a complicated process in their local Parliament to change their annual plan (RKPD) and budget (APBD).

In addition to the problem of elite practices, political motivation, and unpredictability, every local government hold the yearly local development planning meetings (*musrenbang*) to capture the communities' aspirations. On the one hand, the allocation of DAK sectors to each region is under the authority of the central government (Ministry of Finance together with Technical Ministries and or Agencies). Thus, such top-down approach is actually unrelated to the annual and the mid-term local government development plan (RKPD and RPJMD) and *musrenbang* in particular. On the other hand, the law and regulations state that DAK must be allocated based on local government proposals. Here, local government officials claim that they use a participatory and a bottom-up approach in the form of the *musrenbang* to determine the location of DAK sectors. However, due to the limited amount of DAK received, not all development projects proposed by the community can be realized. Aside from the limitation of financing, our respondents state that community proposals are often not in line with the local development framework. In practice, local governments will prefer to decide on the location of DAK-funded projects based on local government work unit (SKPD) plans that accommodate a selective aspiration of the community.

On the implementation aspect, except for DAK in infrastructure sector, the central government is often late to release regulations concerning DAK and its allocation, clashing with local government planning timetables which often involve a very complex procedure in local Parliament. Moreover, such regulations are very rigid in the sense that local governments cannot do the activities outside the regulation. For example, in the case of DAK in education sector, the grants must be executed by involving a combination of three mechanisms of implementation, namely: (i). open-tender; (ii). closed-tender, and (iii). joint partnership between school committee and local government unit. The latter requires expertise from school committee and local governments' apparatus (*i.e.* designing and building the classrooms precisely according to technical guidelines). Thus, failure to comply such guidelines is categorized as a criminal action. Such situation intuitively creates "fear factor" amongst local governments' officers to execute their budget (for similar discussion, see Sugiyanto *et al.* 2018).

We also find that regulations with regards to DAK have been revised many times by the central government within the same budget year. Since DAK is not categorized as a multi-year project, every local government must spend the received allocation in the same budget year. Thus, with this uncertainty condition, local governments have three options. First, they do not want to execute the received allocation with the consequence that they will not receive the next-year allocation. Second, they opt to adopt "a wait and see" approach because they fear that regulations will be changed when they try to initiate the tender. Since changes in regulations involve alteration in implementation of the project, thus according to our respondents, this method is the safest option because it will provide guarantee of not being convicted in corruption case and will keep the chance of getting the allocation in the next period. At the same time, through this approach, communities can see the development of physical infrastructure in their regions even though the proportion of the use of DAK sector cannot be fully absorbed. Last, local government officers take a risk to execute the received allocation, without putting attention on the revised regulation in the future. In our cases, majority of respondents choose the second approach in the implementation of DAK sector, except for DAK in education where most of respondents opt the first option.

Based on planning and implementation aspect of DAK sector, we confirm that good governance practices occur only in infrastructure sector, even though it is still vulnerable with elite capture in the allocation process. On planning side, according to our respondents at national level, every technical ministry play a major role (80%) in determining DAK allocation, although the decision of allocation is in the hands of Ministry of Finance. In the case of DAK in infrastructure sector, local government unit of public work (Dinas PU) send and update periodically (*e.g.* every 6 months) their infrastructure data which based on local needs to Ministry of Public Work (MPW) through its online national system. Here, MPW ensures that such process involve transparency and accountability. To avoid unreliable data, MPW conducts a periodic monitoring together with their representative at province level to check the validity of data. However, all of technical ministries, including MPW, agree that elite capture in allocation process is still dominant. This is due to fact that most of local government stakeholders, whether in the form of direct and indirect interventions as mentioned earlier, sometimes make a deal privately with stakeholders at

Ministry of Finance or even use member of the National Parliament to alter the allocation and the targeted location of DAK.

On implementation side, we find that the process of arranging or even adjusting regulation concerning DAK in infrastructure sector always involve various stakeholders at local and national level. Thus, such condition will give flexibility for every local governments' stakeholder to implement the projects/activities. In addition to this finding, unlike other sectors, such regulation is valid for medium-term (5 years) which eases every local government to integrate DAK of infrastructure sector in their annual and mid-term development planning system (RKPD and RPJMD). Also, such action will solve the issue of timeliness over regulation that occurs in most of DAK sectors.

Conclusion

In this study, we reassess the relationship between DAK and local economic development in 35 districts/cities in Central Java province between 2010 – 2014. We also investigate governance aspect by looking on how DAK is planned and implemented at local and provincial level. The main outcome of the empirical examination is that DAK in education and health, trade infrastructure and supporting facilities, as well as infrastructure and transportation sector gives a significant contribution on a rise in growth of GRDP and a decrease in the number of poor people, respectively.

Although the result shows a promising sign, all sectors of DAK show evidence of elite capture. This occurs in the form of direct and indirect interventions when there is no transparency in the allocation process. Aside from elite capture, the effectiveness of DAK allocation is hampered by political motivation since the determination of DAK allocation in APBN involves an intense discussion between the central government and the National Parliament. Despite the formula of DAK allocation is recently disseminated at local government stakeholders, the allocation and location of DAK sectors cannot be predicted. Thus, the allocation of DAK sectors is often not based on the local needs. Also, it forces local governments to alter their planning and budgeting agenda.

On the implementation aspect, except for DAK in infrastructure sector, the central government is often late to release regulations concerning DAK and its allocation. Moreover, such regulations are very rigid where the activities of DAK-funded project in several DAK sectors do not give flexibility to local governments to perform. We also find that regulations with regards to DAK have often been revised many times within the same budget year. This will lead to a decrease in the quality of public service delivery.

Unlike other sectors, DAK in infrastructure sector can provide a good benchmark on how DAK is planned and implemented at districts/cities and provincial level. On the planning aspect, MPW has developed online national system where each local government unit can draw a portrait of their current infrastructure condition. On the implementation side, the decision-making process in setting up a regulation always gives flexibility on local government stakeholders to implement projects/activities. The sustainability of this DAK sector is also ensured by its medium-term regulation.

One could argue that the prominent evidence of elite capture in our case study can alter the sign of local economic development variable. However, as long as local elites' preferences are somewhat representative from those of the general population, elite capture can give the benefit to the community. This will produce "the imperfect accountability" mechanism in the absence of democracy (Persson and Zhuravskaya 2016), as reflected by the participatory and the bottom – up approach during musrenbang in our case study. Here, elite capture only takes place on the allocation process at the local level, instead on the location of DAK-funded projects.

In future research, it is essential to expand the time span of data and to make comparative analysis of a case study between region with low and high fiscal capacity. Thus, there is a need to incorporate this issue by applying different type of decentralization such as political and administrative, as well as examining an experiment based on a different type of intergovernmental transfers. Overall, the findings that DAK can increase economic growth and can reduce the number of poor people cannot be fully interpreted as a success unless local government adopts a good collaborative governance model (for another application, see Digdowiseiso *et al.*, 2018). Although DAK in infrastructure sectors provides a good framework with regards to the planning and implementation of DAK at districts/cities and provincial level, strengthening the role of the governor can also be an entry point and a very important agenda to explain how DAK is planned and implemented. In this case, the governor acts as the representative of the central government in the region can enforce the synchronization and the harmonization of both planning and implementation of inter-development and intra-development at district/cities within its working territory. This is to ensure that DAK is aligned with national priorities. Governor can also take an intermediary role that bridges the gap between expectation of central government with regards to DAK policy and aspirations of local governments within its working territory.

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