Jurnal Akuntansi dan Auditing Indonesia

Financial characteristics, human development index, and performance: a study of local governments in Indonesia

Dany Adi Saputra[1*], Lina Nur Ardila[2], Purnama Siddi[3], Bambang Sutopo[4]

[1,2,4]Faculty of Economics and Business, Universitas Sebelas Maret, Surakarta, Indonesia
[3]Faculty of Economics, Universitas Islam Batik Surakarta, Surakarta, Indonesia
*Corresponding author e-mail: saputradanyadi@gmail.com

A R T I K E L   I N F O

A B S T R A C T

This study aims to examine whether the financial characteristics and human development index (HDI) are associated with the performance of local governments administration in Indonesia. The sample consists of 385 local governments classifying expenditures into operating and capital expenditures (Sample 1) and 53 local governments classified expenditures into direct and indirect expenditures (Sample 2). Regression result for Sample 1 indicate that special allocation funds (dana alokasi khusus, DAK) have a positive relationship with performance while general allocation funds (dana alokasi umum, DAU) and land expenditure are negatively related to performance. For Sample 2, revenue risk and DAU are negatively related to performance, whereas revenue sharing funds (dana bagi hasil, DBH) have a positive relationship with performance. Audit opinion and human development index are positively related to performance either for Sample 1 or Sample 2. These findings suggest that financial characteristics and human development index can be used as a consideration in determining financial policy and evaluation of local governments.

Introduction

Local government activities in carrying out its main function of providing good services to the community require adequate income and expenditure and require high-quality revenue and expenditures to achieve good performance. However, the phenomenon indicates that the financial characteristics of local governments vary, i.e. local governments may have relatively high or low revenue risks. The proportion of each type of regional expenditure of a local government may differ from that of other local governments. Another phenomenon indicates that local governments may face a situation of relatively high-quality human resources as demonstrated by the relatively high human development index, while other local governments can have a relatively low quality of human resources. Along with this, there are local governments that have high or very high performance, but there are also local governments that have low or moderate performance. The current study aims to examine whether there are linkages between financial characteristics and human development index with the performance of local government administration.

A previous study by Balaguer-Coll, Prior, and Tortosa-Ausina (2007) that examines the determinants of local government performance and find that allocative factors determine the inefficiencies of local governments. Eckardy (2007) who examines political accountability, fiscal conditions and local government performance finds that improving public services is influenced by a well-functioning decision-making process that allocates resources to prioritized areas to meet the needs of the wider community. Another previous study by Sutopo, Wulandari, and Adiati (2017) finds that e-government and audit opinions are positively associated with performance. Findings of Sutopo and Siddi (2018) show that capital expenditure has a positive association with performance under certain conditions. To contribute to the literature on local government performance, the present study investigates whether the financial characteristics and human development index of local governments are positively associated with performance. The financial characteristics include revenue risk, expenditures, and audit opinion. The study also tested whether the risk of revenue and expenditures, which are classified and unclassified, are linked to the performance.

Literature Review

Performance

The performance of a local government shows how well the local government provides service activities to the community. In the present study, the performance of local governance is the achievement of the implementation of local government affairs as measured by inputs, processes, outputs, outcomes, benefits, and/or impacts. The performance of the regional government is regulated in Law Number 32 of 2004 concerning Regional Government which is replaced by Law Number 23 of 2014. The Law is followed by Government Regulation number 3 of 2007 and Government Regulation number 6 year 2008. Then, the law and the regulations become the basis of decision of the Minister of Home Affairs regarding the determination of the status and performance ratings of local government administrations conducted annually. The performance of this regional government administration is described in more detail in (Sutopo, Wulandari, & Adiati, 2017).

Previous studies related to financial characteristics, human development index, and performance have been conducted with varying emphasis in the business sector as well as in the public sector. In the private sector, previous studies examined factors such as "representative bureaucracy" (Andrews et al., 2005), family control (Allouche et al., 2008), governance relating to performance (Kristoffersen, Gerrans, & Clark-Murphy, 2005). In the public sector, Patrick and Trussel (2011) and Trussel and Patrick (2009) examine the linkage of financial characteristics with fiscal distress. Nurhidayati and Yaya (2013) found that the effectiveness of the budget and the special allocation fund have a positive effect on the proportion of capital expenditure. Gousario and Dharmastuti (2015) investigated and found that the ratio of regional financial independence is positively associated with the human development index. Niswaty, Mano, and Akib (2015) found that success in managing finance is related to the human development index that can be used as a proxy for local government performance.

Financial Characteristics and Performance

Revenue risks

In this study, the financial characteristics include revenues, expenditures, and audit opinion. Local governments have two main types of revenues: transfer revenues and local revenues. Large transfer revenues relative to locally-generated revenues indicate the dependence of local governments on sources of funding from outside the local government, in this case, the central government. In contrast, substantial local revenues relative to transfer revenues indicate the independence of local governments in meeting local expenditure needs for local governance. The current study uses the amount of transfer revenues relative to local revenues that indicate the dependence of local governments on the source of transfer funds. This ratio also indicates the revenue risks for local governments because if a local government faces a decrease in transfer revenues, the local government should use relatively limited local revenues to meet local spending needs, and the high risk of revenue is a symptom of financial distress that affects the decline in service to the community (Patrick & Trussel, 2011). Service to the community is a key function of local government. Therefore, the revenue risk is predicted to negatively associate with the performance of local government administration.

Transfer revenues from the central government consist of general allocation funds, special allocation funds, and profit-sharing funds. The general allocation fund is one of the types of government fund transfers (funds sourced from the state budget of revenues and expenditures) to local governments allocated for the purpose of equitable inter-regional financial capacity to fund regional needs in the context of decentralization. Specific allocation funds are funds sourced from the state budget allocated to certain regions with the aim of assisting in funding specific activities which are regional affairs and in accordance with national priorities. The revenue-sharing fund is a fund sourced from the state budget revenue and expenditure funds allocated to the regions based on certain percentage figures to fund regional needs in the context of decentralization implementation with the aim of improving the vertical balance between the center and the region taking into account the potential of the producing region. Because transfer revenue is classified into three types of transfer revenue, the revenue risk can also be specified according to the type of transfer revenue, which are the risk of revenue from the general allocation fund, the risk of revenue of the special allocation fund, and the risk of the revenue-sharing fund.

Expenditures

The next financial characteristic is regional government expenditures. Regional government spending in Indonesia can be classified into two types: (1) operating expenditure and capital expenditure, and (2) direct expenditure and indirect expenditure. Based on the first classification, operating expenses include personnel expenditures, goods expenditures, grant expenditures, social assistance expenditures, and financial aid expenditures, while capital

expenditure consists of land expenditures, building expenditures, road, irrigation, and networks spending, as well as equipment and machinery spending. According to the second classification, direct expenditure is a regional expenditure activity that is directly related to the implementation of the program and activities of local government, e.g. personnel expenditure, goods and services expenditure, and capital expenditure, whereas indirect expenditure is regional expenditure activities that do not have any direct relationship with the implementation of programs and activities, such as personnel expenditure, interest, subsidies, grants, social assistance, profit sharing, financial assistance, and unexpected expenditure.

Trussel and Patrick (2009) argue that local governments that spend relatively large administrative expenditures tend to have relatively low fiscal distress. Their research findings support the prediction. Patrick and Trussel (2011) suggest that capital expenditure can be used to measure "organizational slack" reflecting resource utilization capabilities and discretionary spending levels. Therefore, they argue that low levels of "organizational slack" show symptoms of "fiscal distress" and lead to a decline in public services. However, the results of their study do not support these predictions even they find the opposite results, ie capital expenditure positively associated with the decline in public services.

This study extends these previous studies using the ratio of capital expenditure to operating expenditure and the ratio (CAPEX) of direct expenditure to indirect expenditure (DIRECTEX). The first ratio indicates the ability of local governments to use funds that are beneficial in the long run relative to the use of funds for operating activities, while the second ratio shows the ability of local governments to fund programs or activities specifically designed to provide services to the community relative to funding for general activities not related to these specific programs. Either CAPEX or DIRECTEX is predicted to positively associated with performance.

Audit Opinion

Audit opinion in this study is the opinion given by the Audit Board (Badan Pemeriksa Keuangan, BPK) which is a professional statement of the examiner regarding the fairness of financial information presented in the financial statements based on following criteria: (1) compliance with government accounting standards, (2) adequacy of disclosure (adequate disclosures), (3) compliance with laws and regulations, and (4) the effectiveness of the internal control system. This study examines the relationship between audit opinion and performance with different observations to confirm the findings of previous studies by Sutopo, Wulandari, and Adiati (2017) found a positive association between opinion and performance.

Human Development Index

Human development index (HDI) is a comparative measurement of life expectancy, literacy, education and living standards for all countries around the world. HDI can also be applied at the local government level. Local governments that have high HDI can reflect the quality of local government in terms of human resources of local government. The quality of local government employees is determined from the recruitment of employees. Mamogale (2014) found that employee recruitment patterns have a major impact on local government financial performance. Uche (2014) The quality of human resources can also be related to education spending. This is supported by the findings of which shows the relationship of primary education spending with chairpersons' professionalism. Human Development Index (HDI), in addition to financial characteristics, is predicted to be positively associated with performance.

From the view of institutional theory, the existence of laws and regulations relating to financial characteristics, human development index, and performance evaluation of local governance can be seen as a form of government responsibility in meeting the pressure from various parties on the performance of local government. Institutional theory in the context of the public sector has been used in previous studies such as in Brignall and Modell (2000), Carpenter and Feroz (2001), McLennan et al. (2014). Risk of revenue should be negatively associated with performance, while capital expenditure and human development index should be positively associated with performance. However, there are still problems related to local government revenues and expenditures, which are shown in the audit results by the Audit Board, as well as the relatively low and varied quality of human resources among regions as can be seen from the human development index of each local government presented by Statistics Indonesia (Central Bureau of Statistics/ BPS). Therefore, this study explores how the relationship between revenue risk, capital expenditure or direct expenditure, audit opinion, and human development index with the performance of local government administration.

Research Method

Statistical Models

To examine the association of financial characteristics and human development index with performance, this study uses the following regression models:

$$PERFORMANCE = \beta0 + \beta1REVRISK + \beta2CAPEX + \beta3OPINION + \beta4HDI + \epsilon \quad (1a)$$

$$PERFORMANCE = \beta0 + \beta1REVRISK + \beta2CAPEX + \beta3OPINION + \beta4HDI + \beta5CITY + \beta6PROV + \epsilon \quad (1b)$$

$$PERFORMANCE = \beta0 + \beta1RSLGR + \beta2GALFGR + \beta3SAFLGR + \beta9LANDEX + \beta11BUILDINGEX + \beta12ROADEX + \beta10EQUIPEX + \beta14OPINION + \beta13HDI + \epsilon \quad (1c)$$

$$PERFORMANCE = \beta0 + \beta1RSLGR + \beta2GALFGR + \beta3SAFLGR + \beta9LANDEX + \beta11BUILDINGEX + \beta12ROADEX + \beta10EQUIPEX + \beta14OPINION + \beta13HDI + \beta16CITY + \beta17PROV + \epsilon \quad (1d)$$

$$PERFORMANCE = \beta0 + \beta1REVRISK + \beta2DIRECTEX + \beta3OPINION + \beta4HDI + \epsilon \quad (2a)$$

$$PERFORMANCE = \beta0 + \beta1REVRISK + \beta2DIRECTEX + \beta3OPINION + \beta4HDI + \beta5CITY + \beta6PROV + \epsilon \quad (2b)$$

$$PERFORMANCE = \beta0 + \beta1RSLGR + \beta2GALFGR + \beta3DIRECTEX + \beta4OPINION + \beta5HDI + \epsilon \quad (2c)$$

$$PERFORMANCE = \beta0 + \beta1RSLGR + \beta2GALFGR + \beta3DIRECTEX + \beta4OPINION + \beta5HDI + \beta6CITY + \beta7PROV + \epsilon \quad (2d)$$

Measures of the variables in the regression models are as follows:
- PERFORMANCE is the performance of local government which uses performance score from the Minister of Home Affairs Decree about the rank and status of performance of local government administration. The process of evaluating the performance of the regional government administration can be briefly explained as follows. The Government conducted an Evaluation of the Regional Government Administration (Evaluasi Penyelenggaraan Pemerintahan Daerah, EPPD), one of which was the Evaluation of the Performance of the Regional Government Administration (Evaluasi Kinerja Penyelenggaraan Pemerintahan Daerah, EKPPD). In conducting EPPD nationally the President formed the EPPD National Team, and in conducting EPPD regencies/cities the EPPD National Team was assisted by the governor as the Government's representative in the province. The EPPD National Team evaluates the Provincial, Regencies, and City Performance of Regional Government Administration (EKPPD) every year. EKPPD is conducted to assess the performance of the implementation of regional government in an effort to improve performance based on the principles of good governance. The objectives of EKPPD include the level of regional policymakers and the level of implementing regional policies. The government sets the rank and status of the performance of the implementation of regional government nationally for provinces, regencies, and cities with the Decree of the Minister of Home Affairs.
- REVRISK (Revenue risk) is a transfer revenue that includes general allocation funds (dana lokasi umum, DAU), special allocation funds (dana alokasi khusus, DAK), and revenue sharing fund (dana bagi hasil, DBH) divided by locally-generated revenue (pendapatan asli daerah, PAD). Revenue risk is the amount of local government revenue from transfers relative to the locally-generated revenue.
- RSLGR is revenue sharing fund (DBH) divided by locally-generated revenue (PAD),
- GAFLGR is a general allocation fund (DAU) divided by locally-generated revenue (PAD), and
- SAFLGR is a special allocation fund (DAK) divided by locally-generated revenue (PAD).
- CAPEX (Capital expenditure) is capital expenditure divided by OPEX (operating expenditure).
- LANDEX (Land expenditure) is land expenditure divided by OPEX.
- EQUIPEX (Equipment expenditure) is equipment and machinery spending divided by OPEX.
- BUILDEX (Building expenditure) is the expenditure of buildings divided by OPEX.
- ROADEX (Road Expenditure) is road and network expenditure.
- DIRECTEX (Direct expenditure) is direct expenditure divided by indirect expenditure.
- OPINION (Audit opinion) is the audit opinion provided by the auditor of the Audit Board, with a value of 4, 3, 2, and 1 respectively if the audit opinion is unqualified opinion, qualified opinion, adverse opinion, and disclaimer of opinion respectively.
- HDI (Human development index) is the human development index from Statistics Indonesia (Badan Pusat Statistik, BPS).
- CITY is a city local government which is a dummy variable with a value of 1 if the local government is a city government, and 0 otherwise.
- PROVINCE is the provincial local government which is a dummy variable with a value of 1 if the local government is a provincial government, and 0 otherwise.
- REGENCY is regency local government which is a dummy variable with a value of 1 if the local government is a regency local government, and 0 otherwise.

Data and Sample

The data used in this study were obtained from various sources. The data on the financial characteristics and the size of local government is derived from the tabulation data of the budget realization report provided by the Directorate General of Fiscal Balance, the Ministry of Finance (Directorate General of Fiscal Balance, Ministry of Finance). Audit opinion data is obtained from a summary of the semester audit results (IHPS) that has been published on the Audit Board (Badan Pemeriksa Keuangan, BPK) website. Human development index data is taken from the website of Statistics Indonesia (Central Bureau of Statistics). Source of performance data and the type of local government is the Decree of the Minister of Home Affairs regarding the status and ranking of the performance of local government administration. The audit opinion is obtained from Summary of Semester Audit Results issued by the Audit Board.

The sample frame of this study is the result of the human development index tabulation published by the Statistics Indonesia (Central Bureau of Statistics). From the sample frame, the initial sample was obtained covering 548 local governments consisting of 96 city, 418 regency, and 34 provincial local governments from 2014 observation year. Financial data, particularly expenditure data, from the Directorate General of Fiscal Balance includes two types of classification, i.e. classification based on government accounting standards and classification based on the Minister of Home Affairs regulation. This study uses two groups (samples) of local governments: Sample 1 comprises of local governments reporting expenditures classified into operating expenditures and capital expenditures and Sample 2 covers local governments reporting expenditures classified into direct expenditures and indirect expenditures. After removing local government observations due to missing data, sample selection resulted in 385 observations consisting of 74 city, 305 regency, and 6 provincial local governments for Sample 1 and 53 observations consisting 7 city, 45 regency, and 1 provincial local governments for Sample 2.

Results and Discussion

Descriptive Statistics

Table 1 presents descriptive statistics for Sample 1 (local governments reporting expenditures classified into operating expenditures and capital expenditures) which consists of 385 observations and Table 2. presents descriptive statistics sample 2 (local governments reporting expenditures classified into direct expenditures) consisting of 53 observations. Comparison between Sample 1 and Sample 2 shows that Sample 1 has a higher performance, lower risk (REVRISK), better audit opinion (OPINION) and a higher human development index (HDI) compared to Sample 2. Both Sample 1 and Sample 2 show that the general allocation fund (GAFSLRG) is the largest component of income risk (REVRISK) and even the GAFSLRG dominates REVRISK.

Capital expenditure relative to operating expenditure (CAPEX) in Sample 1 is 0.35 which means that capital expenditure is only 35% of operating expenditure. The largest component of capital expenditure is the road, irrigation, and network (ROADEX), while the smallest component is the land expenditure (LANDEX). For Sample 2, direct expenditure relative to indirect expenditure is 1.19 which means that direct expenditure is greater than indirect expenditure (direct expenditure is 119% of indirect expenditure).

Table 1. Descriptive statistics for local governments reporting expenditures classified into operating expenditures and capital expenditures (Sample 1, N = 385)

Variable	Mean	Median	Maximum	Minimum	Std. Dev.
PERFORMANCE	2.68	2.78	3.44	0.99	0.48
REVRISK	14.87	8.51	246.04	0.12	26.82
RSLGR	1.72	0.18	95.75	0.00	7.39
GAFLGR	11.68	6.53	203.26	0.01	21.22
SAFLGR	1.47	0.64	37.37	0.00	3.19
CAPEX	0.35	0.31	3.45	0.10	0.24
LANDEX	0.02	0.00	2.95	0.00	0.15
BUILDEX	0.10	0.08	0.44	0.00	0.06
ROADEX	0.18	0.16	1.26	0.00	0.12
EQUIPEX	0.05	0.05	0.43	0.00	0.04
OPINION	3.46	3.00	4.00	1.00	0.59
HDI	67.64	66.98	83.78	52.51	5.16

Table 2. Descriptive statistics for local governments reporting expenditures classified into direct expenditures and indirect expenditures (Sample 2, N = 53)

Variable	Mean	Median	Maximum	Minimum	Std. Dev.
PERFORMANCE	2.25	2.24	3.15	0.57	0.55
REVRISK	18.51	10.06	151.60	0.31	28.65
RSLGR	1.78	0.80	15.98	0.08	2.70
GAFSLGR	14.76	7.71	121.97	0.00	23.02
SAFSLGR	1.97	0.73	21.42	0.00	3.64
DIRECTEX	1.19	0.98	2.86	0.48	0.64
OPINION	3.19	3.00	4.00	1.00	0.86
HDI	64.07	63.26	81.30	49.40	6.04

Correlations

Correlations among variables for local governments reporting expenditures classified into operating expenditures and capital expenditures (Sample 1) is presented in Table 3. and correlations for local governments reporting expenditures classified into direct expenditures and indirect expenditures (Sample 2) is presented in Table 2.

Table 3. shows that performance is positively correlated with the human development index (HDI) and it also has a positive correlation with audit opinion (OPINION). However, Table 3. does not show that there is a correlation between performance and financial characteristics of revenue risk (REVRISK) and capital expenditure (CAPEX). The components of revenue risk (REVRISK) which includes revenue sharing fund (RSLGR), general allocation fund (GAFLGR), and special allocation fund (SAFLGR) have a significant positive correlation with REVRISK. Likewise, capital expenditure components (CAPEX) consisting of land expenditure (LANDEX), equipment and machinery expenditure (EQUIPEX), building expenditure (BUILDEX), road and network expenditure (ROADEX) were significantly positively correlated with capital expenditure (CAPEX).

Table 3. Correlations – For local governments reporting expenditures classified into operating expenditures and capital expenditures (Sample 1, N = 385)

VARIABLE	PERF	REVRISK	RSLGR	GAFLGR	SAFLGR	CAPEX	LANDEX	BUILEX	EQUIPEX	ROADEX	OPINION	HDI
PERFORMANCE	1											
REVRISK	-0.01	1										
RSLGR	0.042	.494**	1									
GAFLGR	-0.03	.965**	.255**	1								
SAFLGR	0.023	.845**	.138**	.870**	1							
CAPEX	-0.044	.168**	.163**	.134**	.140**	1						
LANDEX	-.141**	-0.026	-0.007	-0.027	-0.019	.665**	1					
BUILDEX	0.047	.338**	.185**	.308**	.362**	.611**	.117*	1				
EQUIPEX	-0.025	.258**	.415**	.174**	0.05	.453**	0.027	.297**	1			
ROADEX	0.067	.101*	0.092	0.082	0.094	.704**	0.024	.450**	.404**	1		
OPINION	.180**	-0.098	-0.062	-0.089	-0.084	0.034	0.051	0.007	-0.005	0.007	1	
HDI	.161**	0.054	0.045	0.046	0.045	0.017	0.024	0	0.02	-0.001	.256**	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 4. Correlations – for local governments reporting expenditures classified into direct expenditures and indirect expenditures (Sample 2, N = 53)

VARIABLE	PERF	REVRISK	RSLGR	GAFLGR	SAFLGR	DIRECTEXP	OPINION	HDI
PERFORMANCE	1							
REVRISK	-.273*	1						
RSLGR	-0.029	.827**	1					
GAFLGR	-.287*	.998**	.806**	1				
SAFLGR	-.316*	.944**	.672**	.938**	1			
BL_BLBTL	-0.177	-.429**	-.477**	-.412**	-.420**	1		
OPINION	.363**	0.24	.271*	0.238	0.187	-.356**	1	
HDI	.281*	0.016	-0.02	0.012	0.06	-0.064	0.153	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 4. shows that performance is positively correlated with the human development index (HDI) and also has a positive correlation with audit opinion (OPINION). However, in contrast to Table 3., Table 4. shows that there is a negative correlation between performance and revenue risk (REVRISK) and REVRISK components which include general allocation funds (GAFLGR) and special allocation funds (SAFLGR). Table 4. also shows that income risk (REVRISK) is significantly positively correlated with REVRISK components which include profit sharing funds (RSLGR), general allocation funds (GAFLGR) and special allocation funds (SAFLGR).

Regression Results

Table 5 presents regression results for Sample 1 (for local governments reporting expenditures classified into operating expenditures and capital expenditures) - Model 1a and Model 1b. The regression results show that the financial characteristics that include revenue risk (REVRISK) and capital expenditure (CAPEX) have non-significant coefficients, which indicate that those variables are not associated with performance. The audit opinion coefficient (OPINION) is positive and significant at the 1 percent level indicating that audit opinion is positively related to performance. The coefficient of human development index (HDI) is positive and significant at 1 percent level indicating that the human development index has a positive association with performance. Table 6. Model b shows that the coefficients of city local governments (CITY) and provincial local governments (PROVINCE) are negative and significant at 1 percent level indicating that those local governments have lower performance than regency local governments (REGENCY).

Regression results for Sample 1 (for local governments reporting expenditures classified into operating expenditures and capital expenditures) for Model 1c and Model 1d are presented in Table 6. The regression results show that the coefficient of GAFLGR (general allocation fund to locally generated revenues ratio) as a component of revenue risk (REVRISK) is negative and significant at 5 percent level while the coefficient of SAFLGR (specific allocation fund to locally generated revenues ratio) as another component of REVRISK is positive and significant at 10 percent level. These mean that GAFLGR is negatively associated with performance while SAFLGR has a positive association with performance. None of the coefficients of capital expenditure components is significant except LANDEX (ratio of land expenditure to operating expenditure). It has a negative significant coefficient meaning that a high capital expenditure relative to operating expenditure has a negative relationship with performance. The results for the two independent variables, OPINION and HDI, are consistent with the results presented in Table. 5. Similarly, the results for control variables in Table 6. are consistent with that in Table 6.

Table 5. Regression results with the dependent variable of performance for local governments reporting expenditures classified into operating expenditures and capital expenditures
(Sample 1 Model 1a and Model 1b, N = 385)

Variable	Model 1a		Model 1b	
	Coefficient	Prob.	Coefficient	Prob.
REVRISK	0.0001	0.8871	-0.0003	0.7431
CAPEX	-0.1038	0.3026	-0.1014	0.3040
OPINION	0.1227	0.0039	0.1203	0.0040
HDI	0.0114	0.0190	0.0279	0.0000
CITY			-0.3069	0.0003
PROV			-0.5097	0.0082
C	1.5182		0.4853	0.2498
R-squared	0.0492		0.0948	
Adjusted R-squared	0.0392		0.0804	
F-statistic	4.9171		6.5983	
Prob(F-statistic)	0.0007		0.0000	

Regression results for Sample 2 (for local governments reporting expenditures classified into direct expenditures and indirect expenditures) for Model 2a and Model 2b are presented in Table 7., while Table 8. presents regression results for Sample 2 (for local governments reporting expenditures classified into direct expenditures and indirect expenditures) for Model 2c and Model 2d. The table shows that the value of F is significant as the value of F in Table 5. and Table 6. indicating that the regression models are fit. The R Square and Adjusted R Square values in Table 7. and Table 8. are relatively higher than the R Square and Adjusted R Square values in Table 5. and Table 6., which indicate that the association of independent variables with the dependent variable in the regression model in Table 7. and Table 8. is relatively higher than the association independent variables with the dependent variable in the regression model in Table 5. and Table 6.

Table 6. Regression results with the dependent variable of performance for local governments reporting expenditures classified into operating expenditures and capital expenditures
(Sample 1 Model 1c and Model 1d, N = 385)

Variable	Model 1c		Model 1d	
	Coefficient	Prob.	Coefficient	Prob.
RSLGR	0.0060	0.1012	0.0055	0.1268
GAFLGR	-0.0050	0.0388	-0.0052	0.0293
SAFLGR	0.0290	0.0731	0.0281	0.0766
LANDEX	-0.5047	0.0016	-0.4484	0.0046
BUILDEX	0.2445	0.5920	0.1090	0.8083
ROADEX	0.2957	0.1973	0.2649	0.2402
EQUIPEX	-0.9716	0.2325	-0.8270	0.3023
OPINION	0.1278	0.0023	0.1266	0.0022
HDI	0.0115	0.0166	0.0256	0.0001
CITY			-0.2655	0.0015
PROVI			-0.4947	0.0094
C	1.4503	0.0000	0.5701	0.1728
R-squared	0.0940		0.1304	
Adjusted R-squared	0.0723		0.1047	
F-statistic	4.3232		5.0827	
Prob(F-statistic)	0.0000		0.0000	

Table 7. Regression results with the dependent variable of performance for local governments reporting expenditures classified into direct expenditures and indirect expenditures
(Sample 2 Model 2a and Model 2b, N = 53)

Variable	Model 2a		Model 2b	
	Coefficient	Prob.	Coefficient	Prob.
REVRISK	-0.0084	0.0079	-0.0080	0.0135
DIRECTEX	0.0853	0.5364	0.0772	0.5835
OPINION	0.2600	0.0022	0.2662	0.0020
HDI	0.0212	0.0601	0.0321	0.0517
CITY			-0.2738	0.3446
PROV			0.0626	0.8986
C	0.1134	0.8776	-0.5677	0.5840
R-squared	0.3231		0.3373	
Adjusted R-squared	0.2667		0.2509	
F-statistic	5.7271		3.9029	
Prob(F-statistic)	0.0008		0.0031	

Table 8. Regression results with the dependent variable of performance for local governments reporting expenditures classified into direct expenditures and indirect expenditures (Sample 2 Model 2c and Model 2d, N = 53)

Variable	Model 2c		Model 2d	
	Coefficient	Prob.	Coefficient	Prob.
RSLGR	0.1067	0.0119	0.1050	0.0145
GAFLGR	-0.0186	0.0002	-0.0182	0.0004
DIRECTEX	-0.0265	0.8428	-0.0283	0.8356
OPINION	0.2412	0.0025	0.2473	0.0024
HDI	0.0218	0.0405	0.0311	0.0452
CITY			-0.2363	0.3849
PROV			0.1181	0.7985
C	0.2007	0.7712	-0.3897	0.6893
R-squared	0.4169		0.4287	
Adjusted R-squared	0.3549		0.3399	
F-statistic	6.7210		4.8246	
Prob(F-statistic)	0.0001		0.0004	

REVRISK (revenue risk) in Table 7. has negative significant at 1 percent level indicating that the higher the revenue risk the lower the performance. GAFSL (ratio of general allocation fund to locally generated revenue) as a component of REVRISK has negative coefficient consistent with the coefficient of REVRISK in Table 7. On the contrary, RSLGR (ratio of revenue sharing to locally generated revenue) has a significant positive coefficient indicating that RSLGR has a positive impact on performance. SAFLGR (ratio of specific allocation fund to locally generated revenue) is excluded because of multicollinearity problem. DIRECTEX (direct expenditure relative to indirect expenditure) has a non-significant coefficient. The results for OPINION and HDI in Table 8. are consistent with that in Table 7. and also consistent with the results in Table 5. and Table 6. CITY and PROV have no different performance compared to regency local governments.

Results and Discussion

This study shows similarities and differences in findings between local governments reporting expenditure with the classifications of operating expenditures and capital expenditures and local governments reporting expenditures with direct expenditure and indirect expenditure classifications. This study also shows the similarities and differences in findings between financial characteristics that are not classified and classified.

Findings of this study indicate that the unclassified revenue risk for local governments reporting expenditures classified into operating expenditures and capital expenditure (Sampel 1) is different from that for local governments reporting expenditures classified into direct expenditure and indirect expenditure (Sampel 2). Revenue risk is negatively associated with the performance for the latter regional governments, whereas for the former local governments' revenue risk is not related to performance. This difference can be caused by differences in revenue risk and performance differences. Local governments in Sample 1 have relatively higher performance and have a lower revenue risk (REVRISK) than local governments in Sample 2. This can be seen in Table 1. and Table 2. Nevertheless, there are similar findings between the regional governments of the two different groups of local governments when the revenue risk is classified. The ratio of general allocation fund to locally generated revenue has a negative relationship with the performance for both groups of local governments. The general allocation fund (DAU) is the largest component of the transfer fund. This can lead to the finding that the negative effect of the revenue risk from the DAU on performance for the two local government groups shows similarities. Thus, because the ratio of general allocation funds to local revenue reflects the revenue risk, the higher the revenue risk the lower the performance. Local governments that have a high dependence on general allocation funds tend to have low performance and vice versa.

Unclassified expenditure has no effect on performance. The ratio of capital expenditure to operating expenditure is not related to performance. Similarly, the ratio of direct expenditure to indirect expenditure also does not relate to performance. These results can be caused by different characteristics of each capital expenditure component. The ratio of land expenditure to operating expenditure as one component of capital expenditure is negatively associated with performance. This can be caused by the nature of land expenditure which has the potential to cause problems in local government spending.

Audit opinion also plays a role in explaining performance. The quality of opinion reflects the quality of the administration of local government in terms of the compliance with government accounting standards, the adequacy of disclosure, the compliance with laws and regulations, and the effectiveness of the internal control system. This study finds that the better the audit opinion the higher the performance.

The human development index (HDI) is positiveily associated with performance. Local governments with high HDI tend to have high performance. In contrast, local governments with low HDI tend to have low performance. These findings indicate that the human development index that reflects the quality of human resources is able to explain the performance of local government administration.

Type of local government can explain the performance, that is city local governments have lower performance than the regency local governments. Similarly, provincial local governments have lower performance than the regency local governments.

Conclusion

The study finds that unclassified revenue risk has a negative impact on performance, especially for local governments that classify spending into direct expenditure and indirect expenditure. Classified revenue risk which is also negatively related to performance is the ratio of general allocation funds to local revenue which is the largest component of income risk. This finding applies to two local government groups. In contrast to these results, there is an revenue risk that is positively associated with performance, namely the ratio of revenue-sharing funds to locally-generated revenue for the local governments that classify expenditures into direct expenditure and indirect

expenditure and the ratio of special allocation funds to locally-generated revenue for local governments that classify spending into operating and capital expenditure. In addition, land expenditure which is an element of capital expenditure is negatively related to performance. Local governments with large land expenditures tend to perform poorly. Another finding of this study is that local governments with good audit opinions tend to have high performance, and conversely, local governments with poor audit opinions tend to perform poorly. The results of this study also show that the human development index can also explain the performance of local governments. Local governments with a high human development index tend to have high performance. Other findings show that city local governments and provincial local governments have lower performance than regency governments especially for local governments that classify spending into operating and capital expenditure.

The implication of these findings is that local government stakeholders need to pay more attention to the components of revenue and expenditure in designing policies related to revenues and expenditures of local governments to achieve high levels of local government performance. The quality of financial reporting is also important to pay more attention to achieve a relatively high performance. In addition, the quality of human resources reflected in the human development index should also be considered in making performance planning. The city and provincial governments need to improve performance so as not to be left behind by the regency governments.

This study has limitations which, among others, are that this study uses the sample of local governments that classify expenditures into direct expenditure and indirect expenditure are relatively small compared to local governments that classify expenditure into operating and capital expenditure. In addition, further classification data on indirect and indirect expenditure cannot be clearly identified from the data source. These result in a limited analysis and results on the number of observations available. This study also faces obstacles in obtaining performance data because the Minister of Home Affairs' decision on the rank and status of performance of local government administration is usually published two years after the year of evaluation.

Future studies may use samples containing newer data when they are available to test the external validity of the results of this study. Subsequent studies may also be undertaken by considering contingency factors, which have not been considered in this study.

Acknowledgment

References

Allouche, J., Amann, B., Jaussaud, J., & Kurashina, T. (2008). Performance and financial characteristics of family versus nonfamily businesses in Japan : A Matched-Pair Investigation. *Family Business Review*, *XXI*(4), 315–330. https://doi.org/10.1177/08944865080210040104

Andrews, R., Boyne, G. A., Meier, K. J., O'Toole, L. J., & Walker, R. M. (2005). Representative bureaucracy, organizational strategy, and public service performance: an empirical analysis of english local government. *Journal of Public Administration Research and Theory*, *15*(4), 489–504. https://doi.org/10.1093/jopart/mui032

Balaguer-Coll, M. T., Prior, D., & Tortosa-Ausina, E. (2007). On the determinants of local government performance: A two-stage nonparametric approach. *European Economic Review*, *51*(2), 425–451. https://doi.org/10.1016/j.euroecorev.2006.01.007

Brignall, S., & Modell, S. (2000). An institutional perspective on performance measurement and management in the "new public sector." *Management Accounting Research*, *11*(3), 281–306. https://doi.org/10.1006/mare.2000.0136

Carpenter, V. L., & Feroz, E. H. (2001). Institutional theory and accounting rule choice: an analysis of four US state governments' decisions to adopt generally accepted accounting principles. *Accounting, Organizations and Society*, *26*, 565–596.

Eckardt, S. (2007). *Political accountability, fiscal conditions, and local government performance - cross-sectional evidence from Indonesia* (No. 02-2007). Langen.

Gousario, F., & Dharmastuti, C. F. (2015). Regional financial performance and human development index based on study in 20 counties/cities of level I region. *Journal The WINNERS*, *16*(2), 152–165. https://doi.org/10.1016/j.clp.2009.12.001

Kristoffersen, I., Gerrans, P., & Clark-Murphy, M. (2005). *Corporate social performance and financial characteristics: Australian evidence on the financial incentive to self-regulate on environmental, social and governance criteria* (No. 0515). Joondalup.

Mamogale, M. J. (2014). Financial performance of local government in Limpopo province, 2010 - 2012. *African Studies Quarterly*, *15*(1), 71–92.

McLennan, C. lee J., Ritchie, B. W., Ruhanen, L. M., & Moyle, B. D. (2014). An institutional assessment of three local government-level tourism destinations at different stages of the transformation process. *Tourism Management*, *41*, 107–118. https://doi.org/10.1016/j.tourman.2013.09.007

Niswaty, R., Mano, J., & Akib, H. M. (2015). An analysis of the public service performance based on human development index in Makassar city, Indonesia. *International Journal of Applied Business and Economic Research*, *13*(6), 4395–4403.

Nurhidayati, L. L., & Yaya, R. (2013). Alokasi belanja modal untuk pelayanan publik: praktik di pemerintah daerah. *Jurnal Akuntansi dan Auditing Indonesia*, *17*(2), 102–114.

Patrick, P. A., & Trussel, J. (2011). Financial indicators and reductions of public services by Pennsylvania municipalities. *International Journal of Business and Social Science*, *2*(15), 53–62.

Sutopo, B., & Siddi, P. (2018). Capital expenditures and performance of local government administration. *Polish Journal of Management Studies*, *17*(1), 221–231.

Sutopo, B., Wulandari, T. R., & Adiati, A. K. (2017). E-Government, audit opinion, and performance of local government administration in Indonesia. *Australasian Accounting, Business and Finance Journal*, *11*(4), 6–22. https://doi.org/10.14453/aabfj.v11i4.2

Trussel, J. M., & Patrick, P. A. (2009). A predictive model of fiscal distress in local governments. *Journal of Public Budgeting, Accounting & Financial Management*, *21*(4), 578–616. https://doi.org/10.1108/JPBAFM-21-04-2009-B004

Uche, A. (2014). Analysis of local government performance and leadership in Nigeria. *Africa's Public Service Delivery & Performance Review*, *2*(4), 130–150.