

Analysing Service-Level Solvency of Local Governments from Accounting Perspective: A Study of Local Governments in the Province of Yogyakarta Special Territory, Indonesia

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Abstract

This study aims to develop measures of service-level solvency of local government from an accounting perspective and to implement the measures to analyze service-level solvency of local governments in the Province of Yogyakarta Special Territory. The metrics are the first instruments developed in Indonesia to measure service-level solvency of local governments using accounting information. The metrics consist of total assets per capita, total equities per capita, total fixed assets per capita, total expenditures per capita, total public expenditures per capita, and total capital expenditure per capita. The metrics can be used as indicators to assess how sound a local government achieves its objectives.

The analysis of service-level solvency of local governments during the period of 2010-2012 was done by using time-series and cross-sectional analysis. Results of analysis show that all local governments showed improvement trends. Kabupaten Kulon Progo was the best local government compared with other regency local governments; Kabupaten Gunungkidul demonstrated an accelerated trend compared with other regency local governments; and Kabupaten Sleman and Kabupaten Bantul showed decreasing trends compared with its compatriot.

1. INTRODUCTION

1.1 Background

Indonesia is a unitary state that implements a decentralized governance system by granting autonomy to local governments. Local government (LG) autonomy is the delegation of all authorities and submission of all the central government's affairs, except the affairs of foreign policy, defense, security, judicial, monetary and national fiscal, and religion to LGs within the framework of democracy and national development by involving local people's aspirations and participation (Local Government Amendment Act, 2004). Thus, the development in a region will be based on its people's economic and political aspirations.

One aspect of LG autonomy is fiscal decentralization. Fiscal decentralization is a process of distribution of funds from the higher levels of government to the lower levels of government to support the delegation of authority and submission of some of the higher level government's affairs to the lower level governments (Fiscal Balance between Central and Local Government Act, 2004). Fiscal decentralization is a logical consequence of the implementation of regional

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autonomy with respect to the concept of money follows functions², which means that the transfer or delegation of central government authorities must be accompanied by the allocation of funds needed to exercise these powers. Fiscal Balance between Central and Local Government Act (2004) authorises LGs to obtain financial resources in the form of assurance from the central government (i.e., decentralization fund) in accordance with the affairs of the central government that were handed over to LGs, collect and utilize taxes and levies, obtain the results of national resources in their area, and manage regional assets and obtain sources of legitimate income and sources of financing.

In the framework of LG autonomy, each LG is granted rights to design their own policies to achieve national objectives as long as they are congruent with the central government's strategic plan. The central government only provides principles of managing local finance to LGs rather than detailed rules it provided previously. As a result, each LG has its own programs and activities based on its people's perceptions, both economically and politically. The implementation of those programs and activities is financed through the LG budget. Because each LG has different programs and activities, each LG will have a different budget allocation. In turn, the quantity and quality of services and goods provided to the public will be different for each local government. As a result, the service-level condition of each LG varies. This study defines service-level solvency of local government in terms of the capacity of local government to supply and maintain the level of services it provides to the community (Wang and others, 2007).

1.2 Research Problem

Based on the background as stated above, the following question is raised: "How good is a local government's capacity to supply and maintain services at a certain standard and quality needed and requested by its people?" Studies assessing quality of services and goods provided by local governments are frequently done, either by scholars or professional bodies. For example, in Indonesia there are indices of public satisfaction toward local government services and indices of public services. In Spain, to measure service-level solvency, Zafra-Gomez and others (2009a, 2009b, 2009c) use indicators of the grade of services supplied by local government. The types of services are basic services in every local government, which are roads and highways, public parks, street lighting and waste collection.

However, research analyzing service-level solvency of local government from the accounting perspective is limited. To the author's knowledge, no research has been done in Indonesia. This situation motivated the author to analyze local government's capacity to supply and maintain services to its people by using accounting information.

² Concept of money follows functions referring to the budget allocation which is based on the functions of each level of local government entrusted by the law to it in order to avoid overlapping of functions and activities performed by each level of local government (State Finance Act 17, 2003).

1.3 Research Objectives

Two main objectives of this study are to develop measures of service-level solvency of local government from the accounting perspective; and to implement the measures to analyze service-level solvency of local governments in the Province of Yogyakarta Special Territory.

1.4 Research Contribution

This study offers new measures of service-level solvency of local governments by using audited financial information derived from financial statements. Advantages of using such information are objectivity and reliability because the information has been verified by the Supreme Audit Office (SAO). Another advantage is that the information is publicly available and annually released by the SAO.

The measures of service level solvency are analogous to measures of profitability in the business sector. In the business sector, because the main objective of the organization is to maximize stakeholders' value through profit maximization, the measures are developed to assess how far the organization achieves this objective with ratios related to the organization's profitability (i.e., ROI, ROE, profitability index). In the public sector organization, measures of service-level solvency can be referred to as indicators of how well a local government achieves its objectives through delivering goods and services to its community.

2. LITERATURE REVIEW

2.1 Definition of Service-Level Solvency of Local Government

Only a few scholars have defined the meaning of service-level solvency of local government. Groves and others (1981) and Nollenberger and others (2003) define it as local government capability to supply services in the quantity and quality that are needed and requested by its people; whereas Chaney and others (2002) state it as local government's ability to maintain the provision of basic government services. Almost similar to Chaney and others' definition, Kamnikar and others (2006) define service-level solvency as the capability of local government to maintain the sustainability of local government general services to the public. In their study, Wang et al. (2007) state that service-level solvency is the capacity of local government to supply and maintain the level of services it provides to the community.

Chaney and others (2002) and Kamnikar and others (2006) measure service-level solvency as a comparison of unrestricted net assets to total expenses (i.e., Unrestricted net assets/Total expenses). Chaney and others (2002) argue that unrestricted net assets are an appropriate indicator because they show the accumulation of net assets available to provide services to the community. However, the use of the indicator Unrestricted net assets/Total expenses might not be appropriate to show a local government's capability to preserve the pre-existing fundamental government services because it is the total assets, not only the unrestricted assets, that are used by local government to provide services to the community in the future. In addition, the denominator of the ratio should be population size, instead of expenses, so that the indicator demonstrates the resource level available to serve one citizen.

Dennis (2004) measures service-level solvency using several ratios, which are outstanding general long-term debt per resident, general fund operating revenues per resident, general fund expenditures per resident, debt service fund expenditures per resident, and capital projects fund expenditures per resident. Unfortunately, Dennis did not explain the logical framework to develop the ratios.

Wang and others (2007) use ratios Total taxes / Population; Total revenues / Population; and Total expenses / Population to measure service-level solvency. They argue that higher tax per capita indicates a higher tax burden for residents and a lower service-level solvency; higher revenue per capita indicates a higher revenue burden for a resident to pay and a lower service level solvency; and higher expenses per capita indicate a more expensive government and a lower service-level solvency to sustain such expense level.

The use of the ratios total taxes to population and total revenues to population is not appropriate to reflect the dimension of service-level solvency (i.e., the capability of local governments to supply and to maintain service quality at certain standards that the community needs and requests) because the resources used by local governments to provide services and goods to the community in the future are the total assets, instead of total taxes or total revenues.

Rivenbark and others (2009, 2010) measure local government's ability to continue service provision by using a ratio of fund balance to total expenditures. They explained that a high ratio suggests that a local government can continue to provide uninterrupted services.

2.2 Developing Measures of Service-Level Solvency in the context of Indonesia

This study develops measures of service-level solvency based on the definition of service-level solvency as *the capacity of local government to supply and maintain the level of services it provides to the community* (Wang and others, 2007); and the accounting information provided by audited financial statements of local governments in Indonesia. The audited financial statements consist of a balance sheet, a statement of budget realization, and a cash flow statement.

2.2.1 Determining numerator of service-level solvency

The phrase "*the capacity of local government*" is used as a basis to determine the numerator of the ratio." This phrase refers to all of the resources owned by local government to provide services to the community. The resources could include human resources, natural resources, facilities and all assets owned by local government. From the perspective of financial accounting, the information regarding the capacity of local government to serve its community is depicted in the value of assets in the balance sheet statement and/or in the amount of expenditures in the budget realization statement. Therefore, the value of assets or the amount of expenditures will be used as the numerator of ratios.

Value of assets as numerator

The value of assets informs the accumulated resources owned by a local government to provide services and goods to its community since it has been established, while the amount of expenditure informs the amount of goods and services committed by a local government to its community in a certain year. Therefore, the financial information of value of assets is more

powerful than information of amount of expenditure in interpreting service-level solvency of a local government.

One can use value of total assets, value of total equities, or value of fixed assets as the numerator. Total assets indicate the accumulation and availability of resources owned by local governments in serving the community for the future (Chaney and others, 2002). On the other hand, total equities are the net assets, which is the difference between total assets and total liabilities. This can be thought of as assets not claimed by creditors. These assets are the net resources available to provide services in the future (Chase & Philips, 2004). Finally, total fixed assets refer to tangible assets that have a functional age of more than 12 months for use in local Indonesian government activities or by the public (Government Regulation 24/2005; 71/2010).

Expenditure as numerator

Amount of expenditures indicates the size of commitment of local government to serve its resident in a certain year. The more expenditure spent by a local government should be followed by the more services and goods (either quantity or quality) delivered by local government to the community. One can use the amount of total expenditure, amount of public expenditure, or capital expenditure as the numerator. Unfortunately, in Indonesia, the information about amount of public expenditure is not available in the current structure of local government budget or statement of budget realization. Before fiscal year 2006, the structure of local government provided information about the amount of public expenditure.

2.2.2 Determining denominator of service-level solvency

To determine the denominator of the ratio the phrase “ *to the community*” is used as the basis.” This phrase refers to the number of people living in the area of local government. Therefore, the denominator of ratios should be the number of people served by the local government.

Based-on the explanation above, the ratios to measure service-level solvency of a local government from the accounting perspective are as follows:

Exhibit 1: Measures of service-level solvency from accounting perspective

Ratio A = Total assets / Population size

Ratio B = Equities / Population size

Ratio C = Fixed assets / Population size

Ratio D = Total expenditures (constant rupiah) / Population size

Ratio E = Public expenditures (constant rupiah) / Population size

Ratio F = Capital expenditure (constant rupiah) / Population size

Growing value of those ratios shows increasing quantity and quality of service level-solvency delivered by a local government to its residents. However, it cannot be concluded whether or not the existing condition of local government is good, because there is no threshold that distinguishes a good and a weak condition for service-level solvency. However, in general, the higher the ratio of service-level solvency, the better is the service-level solvency.

3. RESEARCH METHODS

3.1 Data and Data Sources

Data utilized in this study consists of audited financial statements, population size, and inflation rate. The audited financial statements of local government include balance sheet, statements of budget realization, and statement of cash flows from 2010 to 2012. Those financial statements are sourced from the Supreme Audit Office of Republic of Indonesia. The opinions of all the financial statements are unqualified opinion or qualified opinion so that the quality of financial information is reliable.

Data of inflation rate are sourced from the Central Bureau of Statistics of the Republic of Indonesia (Biro Pusat Statistik). The inflation rate for the Province of Yogyakarta Special Territory was 3.83% in 2011 and 4.23% in 2012 (Biro Pusat Statistik, 2013). These data are used as discount factors to adjust the purchasing power of local government expenditures in 2011 and 2012 to the base year 2010. Therefore the expenditure sizes of year 2010, 2011, and 2012 are comparable.

Data of population size for year 2010 and inflation rate from 2010 to 2012 are derived from the Central Bureau of Statistics of the Republic of Indonesia. Data for population size for year 2010 are actual data because in that year the Central Bureau of Statistics conducted decennial census of population, whereas data for year 2011 and 2012 are predicted data. To estimate the population size for the year 2011 and 2012, this study uses the results of the study done by Bappenas RI³, Biro Pusat Statistik, and United Nations Population Fund (2005) which state that the average growth of population size for the Province of Yogyakarta Special Territory between 2000 and 2025 is 0.81%. Therefore, the predicted population size year for 2011 is equal to actual population size year 2010 times 1.008 and the predicted population size for year 2012 is equal to estimated population size for year 2011 times 1.008.

3.2 Sample

This study focuses on all local governments in the Province of Yogyakarta Special Territory. There are five local governments in the province, which are one municipal local government (called Kota) and four district local governments (called Kabupaten). The five local governments are Kota Jogjakarta, Kabupaten Sleman, Kabupaten Bantul, Kabupaten Kulon Progo, and Kabupaten Gunung Kidul. Reasons to use local governments in the Province of Yogyakarta Special Territory are:

³ Bappenas RI is the ministry of national planning of The Republic of Indonesia.

1. Local governments in the Province of Yogyakarta Special Territory have adequate quality of financial information as indicated by the opinions (i.e., unqualified opinion or qualified opinion) given the Supreme Audit Board.
2. The similarity of characteristic of local government in terms of socioeconomic, such as level of education of community, wealth of the community, and revenue base of local government.

3.3 Research Procedures

The steps taken in this study are as follow.

- a. Develop measures of service-level solvency of local government from the perspective of financial accounting information. This step has been discussed in the literature section of this study.
- b. Analyze service-level solvency of local governments in the Province of Yogyakarta Special Territory. The steps taken were as follows:
 1. Calculate the measures of service-level solvency.
 2. Adjust the purchasing power of local government expenditures for years 2011 and 2012 to the base year 2010. The adjustments are taken by discounting the amount of expenditure of a certain year with the inflation rates. The inflation rate in year 2011 was 3.83% and 4.23% in year 2012 (Biro Pusat Statistik, 2013). The adjustment of local government expenditures for year 2011 is taken by dividing amount of expenditure for year 2011 with $1 + \text{inflation rate in year 2011}$; and the adjustment of expenditure for year 2012 is done by dividing expenditure in year 2012 with $(1 + \text{inflation rate for year 2011}) \times (1 + \text{inflation rate for year 2012})$. Therefore the expenditure sizes of years 2010, 2011, and 2012 are comparable.

The value of total assets and fixed assets for years 2011 and 2012 are not adjusted because the values of those assets are presented in their historical values.
 3. Do time-series analysis and cross-section analysis.

4. FINDINGS AND DISCUSSION

4.1 Implementing Measures of Service-Level Solvency

The following Tables 1 through 5 show results from the calculation of ratios of service-level solvency.

Table 1: Ratio of total expenditure per capita (constant rupiah) from 2010 to 2012 and its growth

Local Government	Population size			Adjusted total expenditure with inflation			Adjusted total expenditure per capita			
	2010	2011	2012	2010	2011	2012	2010	2011	2012	Growth
Kota Jogja	387,813	390,954	394,121	839,866,480,661.43	897,638,936,090.75	946,021,068,730.59	2,165,648.08	2,296,020.20	2,400,331.45	10.84%
Kab. Sleman	1,090,359	1,099,191	1,108,094	1,131,602,398,904.14	1,230,911,263,133.29	1,313,412,293,866.52	1,037,825.52	1,119,833.92	1,185,289.22	14.21%
Kab. Bantul	911,054	918,434	925,873	1,012,356,847,235.49	1,109,396,082,373.08	1,185,413,572,664.76	1,111,193.02	1,207,922.01	1,280,320.05	15.22%
Kab. Kulon Progo	388,759	391,908	395,082	610,929,785,005.54	750,021,354,170.86	812,661,985,680.61	1,571,487.18	1,913,769.19	2,056,943.01	30.89%
Kab. Gunungkidul	675,175	680,644	686,157	722,210,904,271.50	860,899,872,238.97	946,239,655,788.82	1,069,664.76	1,264,831.51	1,379,042.22	28.92%

Table 2: Ratio of total capital expenditure per capita (constant rupiah) from 2010 to 2012 and its growth

Local Government	Population size			Adjusted total capital expenditure with inflation			Adjusted total capital expenditure per capita			
	2010	2011	2012	2010	2011	2012	2010	2011	2012	Growth
Kota Jogja	387,813	390,954	394,121	53,800,453,105.00	56,969,191,059.42	81,624,701,069.63	138,727.82	145,718.29	207,105.68	49.29%
Kab. Sleman	1,090,359	1,099,191	1,108,094	99,812,269,370.81	92,566,116,859.02	122,467,003,956.65	91,540.74	84,212.96	110,520.38	20.73%
Kab. Bantul	911,054	918,434	925,873	123,249,280,474.00	115,012,068,004.43	129,462,346,988.96	135,282.08	125,226.34	139,827.35	3.36%
Kab. Kulon Progo	388,759	391,908	395,082	46,582,088,894.00	101,709,416,169.70	136,599,367,933.56	119,822.54	259,523.74	345,749.06	188.55%
Kab. Gunungkidul	675,175	680,644	686,157	47,001,128,396.00	106,926,200,425.21	151,873,858,318.16	69,613.25	157,095.65	221,339.76	217.96%

Table 3: Ratio of total assets per capita from 2010 to 2012 and its growth

Local Government	Population size			Total assets			Total assets per capita			
	2010	2011	2012	2010	2011	2012	2010	2011	2012	Growth
Kota Jogja	387,813	390,954	394,121	3,245,300,448,724.10	3,343,809,667,230.65	3,648,019,396,752.77	8,368,209.55	8,552,942.87	9,256,089.52	10.61%
Kab. Sleman	1,090,359	1,099,191	1,108,094	2,518,251,118,898.95	2,834,513,799,504.95	3,166,642,256,976.37	2,309,561.46	2,578,727.48	2,857,737.02	23.74%
Kab. Bantul	911,054	918,434	925,873	2,311,588,911,869.80	2,630,802,970,055.98	2,888,402,710,589.37	2,537,268.82	2,864,445.67	3,119,653.76	22.95%
Kab. Kulon Progo	388,759	391,908	395,082	1,047,032,990,116.28	1,135,893,287,967.84	1,270,642,243,307.02	2,693,270.10	2,898,367.57	3,216,144.88	19.41%
Kab. Gunungkidul	675,175	680,644	686,157	1,367,527,181,432.20	1,544,751,680,038.91	1,627,410,364,289.39	2,025,441.08	2,269,544.53	2,371,775.04	17.10%

Table 4: Ratio of total equities per capita from 2010 to 2012 and its growth

Local Government	Population size			Total equities			Total equities per capita			
	2010	2011	2012	2010	2011	2012	2010	2011	2012	Growth
Kota Jogja	387,813	390,954	394,121	3,241,311,098,215.98	3,338,699,467,852.00	3,644,746,036,572.37	8,357,922.76	8,539,871.78	9,247,784.05	10.65%
Kab. Sleman	1,090,359	1,099,191	1,108,094	2,378,003,061,378.13	2,829,436,711,293.67	3,160,990,221,904.82	2,180,935.88	2,574,108.55	2,852,636.34	30.80%
Kab. Bantul	911,054	918,434	925,873	2,310,803,383,657.99	2,630,304,220,488.46	2,881,980,241,484.33	2,536,406.61	2,863,902.63	3,112,717.09	22.72%
Kab. Kulon Progo	388,759	391,908	395,082	1,044,888,105,961.46	1,132,014,838,258.42	1,263,836,933,275.94	2,687,752.84	2,888,471.25	3,198,919.84	19.02%
Kab. Gunungkidul	675,175	680,644	686,157	1,365,800,077,099.57	1,543,971,831,246.82	1,627,080,851,402.77	2,022,883.07	2,268,398.78	2,371,294.81	17.22%

Table 5: Ratio of total fixed assets per capita from 2010 to 2012 and its growth

Local Government	Population size			Total fixed assets			Total fixed assets per capita			
	2010	2011	2012	2010	2011	2012	2010	2011	2012	Growth
Kota Jogja	387,813	390,954	394,121	3,005,251,743,213.16	3,073,463,152,914.48	3,122,183,232,908.76	7,749,228.99	7,861,438.71	7,921,889.76	2.23%
Kab. Sleman	1,090,359	1,099,191	1,108,094	2,229,592,426,782.81	2,504,501,327,118.97	2,619,694,035,946.66	2,044,824.16	2,278,495.31	2,364,143.47	15.62%
Kab. Bantul	911,054	918,434	925,873	2,164,887,631,044.59	2,438,010,828,531.10	2,614,656,237,150.17	2,376,245.13	2,654,531.58	2,823,990.62	18.84%
Kab. Kulon Progo	388,759	391,908	395,082	896,600,773,942.78	973,784,613,410.33	1,112,990,755,010.08	2,306,315.16	2,484,727.90	2,817,110.43	22.15%
Kab. Gunungkidul	675,175	680,644	686,157	1,189,477,988,537.00	1,544,751,680,038.91	1,627,410,364,289.39	1,761,732.87	2,269,544.53	2,371,775.04	34.63%

The tables above show that Kota Jogjakarta has highest values with significant difference for all the ratios of service-level solvency compared to other local governments. For example, in 2012 Kota Jogjakarta has Rp9,256,089.52 total assets per capita and Rp7,921,889.76⁴ fixed assets per capita, whereas Kabupaten Bantul only has Rp3,119,653.76 and Rp2,823,990.62 for those ratios consecutively. This fact suggests that Kota Jogjakarta should not be compared with other local governments because it is not equivalent with other local governments. It has different characteristics. Kota Jogjakarta is a municipal local government, whereas the others are district local governments. Therefore the next analysis will exclude Kota Jogjakarta from discussion. Rivenbark and others (2009, 2010) and Zafra-Gomez and others (2009a, 2009b, 2009c) argue that one should create a cluster of equivalent groups of local governments before doing further analysis. The discussion will focus on four district local governments that are considered comparable based on the author's judgment. The following paragraph will discuss the results of each measure of service-level solvency.

Total expenditure per capita (constant rupiah)

Table 1 shows that all local governments showed increasing trends for this ratio from 2010 to 2012. This condition showed an increasing commitment of local governments to deliver goods and services to the public for a specific year. For example, in 2010 Kabupaten Kulon Progo dedicated Rp1,571,487.18 to serve each resident and increased it to Rp2,056,943.01 in 2012 after eliminating the effect of inflation. This situation indicated that there was improvement in expenditure power of Kabupaten Kulon Progo to serve its community.

The highest growth of this ratio with a rate of 30.89% belonged to Kabupaten Kulon Progo; whereas Kabupaten Sleman experienced the lowest growth with a rate of 14.21%. In addition, Table 6 reports the ranking of adjusted total expenditure (constant rupiah) per capita for the local governments from 2010 to 2012.

Table 6: Ranking of total expenditure per capita (constant rupiah) from 2010 to 2012

Ranking	Total adjusted expenditure per capita		
	2010	2011	2012
1	Kulon Progo	Kulon Progo	Kulon Progo
2	Bantul	Gunungkidul	Gunungkidul
3	Gunungkidul	Bantul	Bantul
4	Sleman	Sleman	Sleman

Table 6 shows that Kabupaten Kulon Progo had the strongest position for this ratio from 2010 to 2012. On the other hand, Kabupaten Sleman was placed as the weakest condition relative to other local governments. Kabupaten Gunungkidul demonstrated an acceleration trend for this ratio and overtook Kabupaten Bantul in 2011. In turn, Kabupaten Bantul was down-graded to ranking 3.

⁴ 1 USD = 11 627, 907 Indonesian rupiahs

Total capital expenditure per capita (constant rupiah)

Table 2 reports that all local governments have improved their capital expenditure per capita from 2010 to 2012. For example, in 2010 Kabupaten Bantul spent Rp135,282.08 per each resident to invest in fixed assets for serving its people. This figure was increased to Rp139,827.35 in 2012 after taking out the effect of inflation. This fact showed an improvement in capacity of a local government in delivering services to its community.

The best improvement was recorded by Kabupaten Gunungkidul with a rate of growth of 217.9%. As a result, Kabupaten Gunungkidul increased dramatically its ranking from the lowest in 2010 to number 2 in 2012. However, Kabupaten Bantul only made an improvement with rate of growth of 3.36% during 2010 to 2012. In turn, its ranking drops sharply from number 1 in 2010 to number 3 in 2012. Kabupaten Sleman also experienced a similar decreasing trend as Kabupaten Bantul. It was in the lowest ranking for 2011 and 2012. Table 7 reports the ranking of adjusted total capital expenditure per capita for local governments from 2010 to 2012.

Table 7: Ranking of adjusted total capital expenditure per capita from 2010 to 2012

Ranking	Total capital expenditure per capita (constant rupiah)		
	2010	2011	2012
1	Bantul	Kulon Progo	Kulon Progo
2	Kulon Progo	Gunungkidul	Gunungkidul
3	Sleman	Bantul	Bantul
4	Gunungkidul	Sleman	Sleman

Total assets per capita and total equities per capita

Table 3 and Table 4 report that the two ratios show that all local governments demonstrate increasing trend from 2010 to 2012. In 2010, for example, total assets per capita and total equities per capita for Kabupaten Bantul are Rp2,537,268.82 and Rp2,356,406,61, respectively. Those figures mean that Kabupaten Bantul had capacity of Rp2,537,268.82 of assets or Rp2,356,406,61 of equities to serve each resident. In 2012 this capacity increased to Rp3,119,653.76 per capita for assets and Rp3,112,717.09 per capita for equities.

Kabupaten Sleman experienced the highest growth during this period with a rate of growth of 30.80% for ratio total assets per capita and 23.74% for ratio total equities per capita. On the other hand, Kabupaten Gunungkidul showed the smallest rates which are 17.10% for ratio total assets per capita and 17.22% for total equities per capita.

Looking from cross sectional analysis, the pattern of position for all local governments is similar from 2010 to 2012. Table 8 reports the ranking of ratio total assets per capita and ratio total equities per capita for local governments from 2010 to 2012.

Table 8: Ranking of total assets per capita and total equities per capita from 2010 to 2012

Ranking	Total Assets per capita			Total Equities per capita		
	2010	2011	2012	2010	2011	2012
1	Kulon Progo	Kulon Progo	Kulon Progo	Kulon Progo	Kulon Progo	Kulon Progo
2	Bantul	Bantul	Bantul	Bantul	Bantul	Bantul
3	Sleman	Sleman	Sleman	Sleman	Sleman	Sleman
4	Gunungkidul	Gunungkidul	Gunungkidul	Gunungkidul	Gunungkidul	Gunungkidul

Kabupaten Kulon Progo had the highest values for both ratios followed by Kabupaten Bantul, Kabupaten Sleman, and Kabupaten Gunung Kidul consecutively. Although Kabupaten Sleman had demonstrated the highest growth for the period between 2010 and 2012, its level was always in the second lowest values for both ratios for the period.

Total fixed assets per capita

Table 5 shows that all local governments showed upward trends for this ratio from 2010 to 2012. Such trends indicate improvements of service-level solvency for all local governments. Kabupaten Gunungkidul showed the highest rate of growth, which was 34.63% and Kabupaten Sleman had the lowest rate of 15.62%. In 2010, total fixed assets per capita of Kabupaten Gunung Kidul was Rp1,761,732.87 meaning that it had Rp1,761,732.87 value of fixed assets to serve each resident. This figure increased to Rp2,371,775.04 value of fixed assets per resident in 2012. This fact showed an improving service-level of local government. Table 9 reports the ranking of total fixed assets per capita for local governments from 2010 to 2012.

Table 9: Ranking of Total fixed assets per capita from 2010 to 2012

Ranking	Total Fixed Assets per capita		
	2010	2011	2012
1	Bantul	Bantul	Bantul
2	Kulon Progo	Kulon Progo	Kulon Progo
3	Sleman	Sleman	Gunungkidul
4	Gunungkidul	Gunungkidul	Sleman

The pattern of ranking of service-level solvency of the two highest ranks for period 2010-2012 was similar, with Kabupaten Bantul in the first rank followed by Kabupaten Kulon Progo in the second rank. However, the pattern for the lowest rank was changed where Kabupaten Gunung Kidul was in this position in 2010 and 2011 and then was replaced by Kabupaten Sleman in 2012. This situation demonstrated that Kabupaten Gunungkidul had improved significantly its service-level. This situation was supported by the increasing trend of ratio adjusted capital expenditure per capita for Kabupaten Gunungkidul.

Although Kabupaten Sleman showed an improvement in this ratio from 2010 to 2012, the improvement was slower when compared to Kabupaten Gunung Kidul. This situation was

consistent with the trend in ratio of adjusted capital expenditure per capita which also showed a declining trend for Kabupaten Sleman.

It is a surprise that Kabupaten Sleman, which is perceived by the community as the leading local government in the Province of Yogyakarta Special Territory, was in the bottom line as it has the worst service-level solvency. On the other hand, Kabupaten Kulon Progo, which is frequently perceived as an “underdog” local government in the Province of Yogyakarta Special Territory, showed an amazing trend as the best local government in service-level solvency. These facts show that service-level provided by local government seen from the perspective of accounting could be different from other perspectives. However, it should be similar.

5. CONCLUSION

Based on findings and the discussion in the previous section, this study concludes that:

1. To analyse a certain condition of local government (in this study the condition is service-level solvency) an analyst should create a cluster consisting of local governments with comparable (i.e., equivalent) characteristics;
2. There was improvement of service-level solvency for all local governments during 2010 – 2012 as shown by upward trends for all ratios of service-level solvency with a variety of rate of growth;
3. Kabupaten Kulon Progo was the best in service-level solvency compared to other regency local governments in the Province of Yogyakarta Special Territory during the period of 2010-2012;
4. Kabupaten Gunungkidul demonstrated an accelerated trend of service-level solvency during period of 2010-2012 compared with other regency local government in the Province of Yogyakarta Special Territory; and
5. Kabupaten Sleman and Kabupaten Bantul showed decreasing trends of service-level solvency during period of 2010 – 2012 compared with its compatriots in the Province of Yogyakarta Special Territory.

6. LIMITATION AND SUGGESTIONS FOR FUTURE RESEARCH

The financial information regarding the value of fixed assets is presented in the balance sheet as historical cost without deducting the accumulated depreciation. Those values should show the book values, which are the historical cost minus accumulated depreciation of those assets. The information of book values is fairer than historical value.

Up to now most of local governments in Indonesia have not yet presented the information of accumulated depreciation of fixed assets in their balance sheets, although the Governmental Accounting Standards requires such information in presenting fixed assets. Therefore, this study strongly suggests that local governments in Indonesia implement the requirement of presenting accumulated depreciation of fixed assets as stated in Governmental Accounting Standards.

The use of ratio of total expenditure per capita needs to be refined because not all of the total expenditure is utilized to provide services to the public. Therefore, future research should refine the measures by proposing ratios that are more representative of local government expenditures devoted to the public.

Regulators in the Ministry of Home Affairs should reconsider the structure of local government budget so that the structure of said budget can provide information regarding expenditures

devoted to the community. Such structure had been implemented during the period of 2002-2005. However, since 2006, the previous structure changed to a new structure, which resulted in difficulties determining the amount of public expenditure.

The information regarding population size, except for data in 2010, is predictive information because it is estimated based on prediction of population growth. It is understandable that the accurate information of population size can only be obtained through population census that is only done every ten years by the central government.

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