Measuring Good Public Governance in the Local Governments of Indonesia: A Multidimensional Index

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ABSTRACT

This study aimed to fill the gap by measuring and examining the level of GPG for local governments in Indonesia. The study used a multidimensional index by incorporating information from the Indonesia Governance Index (IGI) principles indicators, the Evaluation of local government performance reports, the annual reports of local governments financial statement and the Central Bureau of Statistics from 2015 to 2017. The Two-staged Factor Analysis was employed for weights assignment. The results are presented based on comprehensive scores and ranks for five district and city levels of the local governments which had have the highest and lowest values for each GPG principle and overall GPG index. The findings showed that there was evidence of an increasing trend on the implementation of GPG principles in the local governments. There were also evidence on the lack of information regarding which indicators needed to be improved, due to lack of awareness among the local governments on importance of quality application of the GPG principles in the government system. It implies that the central government focused on performance evaluations, rather than implementation of GPG in local governments. The findings suggest that it is useful for the local governments to measure the level of good public governance using the mulitidimensional GPG index rather than using a single dimension.

Keywords: good public governance, multidimensional index, local government of Indonesia

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INTRODUCTION

As one of the emerging countries in Asia, Indonesia had begun to decentralize the power of the Central government to the local government in 1999. The Law No.23 of 2014 on the Local Government and the Law No. 33 of 2004 on the Financial Balance of the Central and Local Governments regulate the fiscal decentralization era in Indonesia. Decentralization refers to the empowerment to the local government for a regional autonomy in developing the region. Therefore, local governments represent the lowest tier of public administration and being the closest to the general public. Whilst, local citizens expect their local governments to deliver efficient public services from the budget allocated by the central government, they also have a strong voice to demand that local governments provide good public governance practices (Addink, 2019). In addition, Rossieta et al. (2020) suggested that good public governance (GPG) is important to increase compliance of the regional governments. GPG practices were argued to be one of contributing factors to improve openness, participation, and accountability in accordance with the basic principles of governance in the public sector (Setyaningrum et al., 2017). The local governments aim to produce quality public outputs, including services delivered to citizens (OECD, 2014), through GPG practices.

Additionally, an efficient local government is able to increase public trust, as many mismanagement cases have been reported related to the local government. From the agency theory perspective, local governments act as an agent to their citizens (as principal). Therefore, local governments are accountable for all activities that are carried out, using the funding collected from the citizens such as taxes. The implementation of GPG is one of bureaucratic reform missions by the Indonesian government.The National committee of governance policy had set out five (5) principles of good public governance, namely; democracy, transparency, accountability, the culture of law and fairness, and equality (KNKG, 2008). Fitriani and Setyaningrum (2018) suggested that the GPG principles should be applied with a measureable index. However, the committee does not have a comprehensive measurement tool for each GPG principle. Thus, a multidimensional index is vital to measure the level of success in the implementation of GPG principles.

Previously, in late 2012, the partnership for governance reforms of Indonesia in collaboration with the Australian agency for international development had identified the principles of GPG and their measurement indicators known as the Indonesia Governance Index (IGI). IGI is the result of the rating as outlined in the index of Indonesian governance and later became an independent institution of non-governmental partnership in Indonesia. IGI is a comprehensive, measurable, and rich data tool that can be used as a reference for all stakeholders to evaluate the performance of management at districts and cities. However, since 2012, there has not been a comprehensive review of the index to take into account of the recent development in the performance of management at districts and cities. This in turn increases the challenges to measure the implementation of the GPG in the Indonesian local government using the IGI.

In addition, the government also conducts self-evaluations to measure GPG based on performance of the local governments. The Government Regulation No. 13 of 2019 about Report and Evaluation of Local Government Implementation requires the local government to prepare an annual self-evaluation report. The reports need to be submitted to the Ministry of Home Affairs of the Republic of Indonesia annualy. The application of the GPG principles are described using score of minimum service standards, where the local governments have carried out the annual self-evaluation report (Akbar, Pilcher, & Perrin, 2012) it explores a conceptual model developed to explain the hypothesised relationships between technical and organisational factors and the development and use of performance indicators and accountability practices. Design/methodology/approach – Surveys were sent to senior finance officers in all local governments (457. Nevertheless, previous literature has argued that there were still limited dimensions in measuring and implementing GPG principles in the public sector of Indonesia (Setyaningrum et al., 2017; Wardhani et al., 2017; Nurhanifah & Setyaningrum, 2021).

Against this backdrop, this study aimed to measure and examine the level of each GPG principle of the local goverments from 2015-2017 in Indonesia. A dimensional GPG index was constructected by integrating the principles of GPG and indicators measurement of the existing IGI. The findings of this study will be useful for the local governments to evaluate the GPG implementation, incorporating the GPG principles and IGI. The

local governments with the lowest ranking can assess which principle of the GPG should be improved. On the other hand, local government with the highest ranking should be able to maintain the GPG principles. The study also showed that indicators issued by the IGI can be a measurement of the GPG for local governments in Indonesia. In addition, this study also succeeded in showing that in making an index, factor analysis can be used with the Principle Component Analysis approach so that the resulting index can extract the structure of a data set with quite a lot of dimensions. The Principal Component Analysis (PCA) can reduce the size of the dimensions of the observed data into smaller dimensions without losing significant information in describing the overall data.

LITERATURE REVIEW

The Concept of Good Public Governance (GPG) of Local Governments in Indonesia

Good public governance (GPG) is important to achieve targeted performance of local governments. According to OECD (2015), good public governance comprises of six key elements namely; participation, transparency, accountability, effective, equity and promoting rule of law. Furthermore, Bond (2006) described good public governance as transparent and accountable management of a country's human, natural, economic and financial resources towards equitable and sustainable development. The GPG generally implies a number of institutions that regulate the behavior of public bodies' stimulate citizens' participation in government, and control public-private relations (Addink, 2019).

The application of the GPG in the public sector is in line with new public management which has become increasingly popular both in developed and developing countries, including Indonesia. Rusydi and Rossieta (2015) asserted that the implementation of the new public management is aimed to improve the efficiency and effectiveness of public services and its organizations. A strand of studies, Addink (2019); Lestiawan and Jatmiko (2016); Setyaningrum and Saragih (2019) suggested that application of the GPG will improve performance of public sector institutions. In addition, a study by Wardhani et al. (2017) examined the

effect of GPG implementation on local government spending. The results showed that quality of implementation of the GPG on local governments has a positive effect on the performance of local governments which was reflected in the improvement of the welfare of the people and the quality of public services.

Indicators and Dimensions: Indonesia Governance Index (IGI)

The Indonesia Governance Index (IGI) is a composite index that measures the GPG referring to the ranking of objective criteria measured by 89 indicators. It has been successfully done and has been examined by the Partnership for Governance Reform that also serves as a granary of knowledge, expertise, and experience in guarding governance reforms in Indonesia. According to Kemitraan (2013), IGI divides the six (6) principles of the GPG which are participation, fairness, accountability, transparency, efficiency, and effectiveness. The first principle is participation. Participation has basic rule that the level of involvement of stakeholders in the policy-making process in every arena and sub-arena, while justice is a condition where policies and programs can be applied fairly to all parties (non-discriminatory) to status, race, religion, or gender. The second principle is fairness, where the fairness rule is the existence of elements of justice and honesty so that in its implementation, it can realize the equal treatment of all the stakeholders responsibly.

The third principle is accountability, which means it contains the clarity of function as an element in the organization and how to account for it. The fourth principle is transparency, which is the provision of adequate and accessible information by stakeholders and disclosure elements. Meanwhile, the basic principle of efficiency is that the government strives to produce quality public outputs, including services delivered to citizens, at the best cost, and ensures that outputs meet the original intentions of policymakers. The last principle is effectiveness, where the objectives of the policy and the outcome of the programs being run have achieved the expected objectives. According to Fitriani and Setyaningrum (2018), the IGI assessment also includes four (4) arenas. It consists of the bureaucratic arena, the government arena (political office), economic society arena, and civil society arena. The synchronization of the four (4) arenas can interact in a balanced way and create development synergies that produce results for the common good.

METHODOLOGY

Sample and Data

There was a total of 1524 districts and cities in Indonesia, but the study focused on 508 districts and cities governments as in Table 1. However, due to incomplete data, the sample was 140 districts and cities from 2015 to 2017. The trends in each principle and GPG index can be seen based on the result for these three (3) periods. The secondary data was collected from the Evaluation of Local Government Performance Report, the annual report of local government financial statements and key economic indicators from the Central Bureau of Statistics, Indonesia.

Table 1: List of Selected District and City Local Governments in Indonesia

No.	Province	Regency	City
1	D.I Aceh Darussalam	18	5
2	North Sumatera	25	8
3	West Sumatera	12	7
4	Jambi	9	2
5	Riau	10	2
6	Riau Island	5	2
7	Bengkulu	9	1
8	South Sumatera	13	4
9	Bangka Belitung Island	6	1
10	Lampung	13	2
11	West Java	18	9
12	Banten	4	4
13	Central Java	29	6
14	DI Yogyakarta	4	1
15	East Java	29	9
16	Bali	8	1
17	West Nusa Tenggara	8	2
18	East Nusa Tenggara	21	1
19	West Kalimantan	12	2
20	Central Kalimantan	13	1
21	South Kalimantan	11	2
22	East Kalimantan	7	3
23	North Kalimantan	4	1
24	North Sulawesi	11	4
25	Gorontalo	5	1
26	Central Sulawesi	12	1

27	South Sulawesi	21	3
28	Southeast Sulawesi	15	2
29	West Sulawesi	6	-
30	Maluku	9	2
31	North Maluku	8	2
32	Papua	28	1
33	West Papua	12	1
Total		**415**	**93**

Construction of a Multidimensional Good Public Governance (GPG) Index

This study used a quantitative approach using Factor Analysis to construct the multidimentional goof public governance (GPG) Index. A multidimensional approach was implemented following a four-step sequence as follows; 1) Mapping the GPG principles, 2) Analysing of GPG index using Factor Analysis, 3) Ranking the scoring and rating, 4) Identify scores of the GPG index. After developing the score of the GPG index, then it was implementedto assess the level of GPG in local governments in Indonesia. Based on those assessments, we present the top five (5) of the highest or lowest GPG index score from 2015 to 2017.

Step 1 - Mapping the GPG principles

The GPG principles used in this study were based on IGI developed by the Partnership for Governance Reform. The study mapped each IGI indicator with GPG principles into four (4) arenas. The indicators measurement was obtained from the annual report of the Evaluation of Local Government Performance, the annual report of local government financial statement, and several data from Central Bureau of Statistics. Technically, the indicators used in those annual reports were not classified according to the GPG principles. Therefore, it was necessary to map the IGI indicators with the annual report indicators. The indicators from the annual reports used as measurement for this study, can be classified and identified into suitable GPG principles. From a total of eighty-nine (89) IGI indicators, only forty-two (42) were selected as significant indicators. Several indicators in the IGI used questionnaires and surveys, but this study focused on utilising secondary data.

Step 2 – Analysing of GPG index using Factor Analysis

Factor analysis is an important instrument used in the development, refinement, and evaluation of tests, scales, and measurements (Abdi & William, 2010). Factor analysis is used to reduce variables in large numbers that are mutually independent into a group or smaller components. In factor analysis, factor extraction is necessary. There are several ways to extract factors, but this study used the Principal Component Analysis (PCA). Netemeyer et al. (2003) suggested that the PCA is considered more useful if researchers originally developed an instrument with multiple items and were interested in reducing the number of items. Thus, the PCA was used to evaluate the loading of each measured item and data collected on good public governance GPG principles. Then, the score of each GPG principle was derived for local governments for regions and cities from 2015 to 2017.

Moreover, the study used the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and the Baetlett Test of Sphericity prior to conducting Factor Analysis to further verify adequate correlatios between indicators. Table 2 shows the KOM and Bartlett's Tests for tbe GPG constructs. There were six principles of the GPG that were tested. The KMO statistics was 0.616, which was more than the minimum required threshold of 0.5. While the Bartlett Test statistic was 120.350 statistically significant at the 1% level. These statistical results confirmed that indicators were correlated and suitable for structure detection for Factor Analysis and using a Principal Component Analysis (PCA) approach.

Table 2: KMO and Bartlett's Tests for GPG Constructs

Good Public Governance		Matrices	KMO & Barlett's Test				Total Variance Explained		
No	Component		KMO	χ^2	df	Sig.	Total	% Var	Cum %
1	Participation	0.628[a]							
2	Fairness	0.623[a]					1.436	23.929	23.929
3	Accountability	0.610[a]	0.616	120.350	15	0.000	1.163	19.387	43.316
4	Transparency	0.643[a]					1.033	17.219	60.534
5	Efficiency	0.453[a]							
6	Effectiveness	0.615[a]							

Meanwhile, the value of matrices from six (6) principles (42 indicators) were above 0.4 and the total variance formed three (3) factors, with values of 23.92%, 19.38% and 17.21% and cumulative of 60.534%. It was concluded that all six (6) indicators were correlated.

The study measured a new score for the multidimensional GPG Index using the formulation below:

Total Score = (% Variance/ Cumulative %) Factor   (1)
Total Score of GPG = (23.92/60.53) Factor 1 + (19.38/60.53) Factor 2 + (17.21/60.53) Factor 3   (2)

Using the multidimensional index, this study measured 536 selected local government and ranked the scores.The findings are discussed in the next section of the results and discussion.

Step 3 – Ranking the Scoring and Rating

Finally, the study ranked the GPG scoring which were measured using the multidimensional GPG index for all the six principles of the GPG, namely; participation, fairness, accountability, transparency, efficiency, and effectiveness. The ranking of the GPG scoring identified five local governments at district and city levels with the highest and lowest GPG scores based on measurement of the multidimensional GPG index. The rating of five highest and lowest scoring local governments at the district and city levels indicated which local government needed improvement and the implementation of the GPG principles, and what indicators are key in terms of enhancing GPG quality in the local governments.

RESULTS AND DISCUSSION

Analysis of Results on Good Public Governance using the GPG Multidimensional Index

The analysis was carried out using the dimensional GPG index on the local governments from 2015 to 2017. The analysis on each GPG principle consisted of trend indicators, factor analysis, and the results of scoring and ranking of local governments.The results showed that the GPG principle indicators were experiencing an increasing or decreasing trend for each local government. The presentation of trend indicators for each principle was divided based on the unit of measure for each similar indicator. Then, factor analysis was carried out on GPG principles that met the test criteria in order to get their final values. Finally, scoring was carried out on each

of the GPG principles for all districts and city level of local governments. Scoring was done by multiplying the weight of each component with the results obtained from factor analysis. The study ranked the scoring values of five (5) district and city level local governments based on the highest and lowest scores in the implementation of the GPG principles and GPG index. The discussion of results on six GPG principles using the multidimensional GPG index are presented below:

Principle 1: Participation

According to Kim et al. (2005) the principle of participation puts forward the right of citizens and involvement of citizens in actual or intended actions of administrative authorities. Participation covers different participatory forms in which citizens are involved in influencing public policy from choosing their representatives, policy making and implementation of policy. From the IGI indicators which consisted of four (4) arenas, only four (4) indicators were taken from government arena, two (2) indicators were from civil society arena and only one (1) indicator was taken from economic society arena. Thus, seven (7) indicators for the participation principle were generated.

In the principle of participation, there were seven (7) IGI indicators included, namely; (a) accommodation of district program proposals in the results of district development planning, (b) quality of public hearings to discuss district financial budgeting or other financing, (c) quality of hearings/interactions of stakeholders with the Governor, (d) the quality of public complaint channels in strengthening the oversight function of the legislative council, (e) a forum for community involvement provided by Civil Society Organizations (CSOs) for advocacy and monitoring, (f) community involvement by CSOs in community empowerment efforts, and (g) involvement of business associations in the formulation of regional development policies. These seven (7) indicators were chosen based on these indicators related to twelve (12) indicators in the Evaluation of Local Government Performance Report.

Ranking of Scoring and Rating

Since only twelve (12) indicators met the criteria, the next step was to extract components using the Principal Component Analysis (PCA) method. The results showed that score of component extracted using the PCA method, there were 2 (two) components has formed to represent the principle of participation. Table 3 presents the results for the highest scores obtained by 5 district and city level local governments. While, Table 4 shows the lowest score obtained by 5 district and city level local governments from 2015 to 2017.

Table 3: Local Governments Highest Rank:
Participation Principle (2015-2017)

Year	Province	District / City	Score
2016	Prov. Riau	City Pekanbaru	8.040
2016	Prov. Riau	District Meranti Island	7.300
2016	Prov. Riau	District Siak	5.335
2016	Prov. Riau	District Bengkalis	5.235
2016	Prov. Riau	District Rokan Hulu	4.438

The results on the principle of participation indicated that the Pekanbaru city of the Riau provincial government obtained the highest value of 8.040 in 2016. It was interesting to note that all top 5 district and city level of local governments were from Riau provincial government; District Meranti Island, Siak, Bengkalis and Rokan Hulu. The scores were obtained in 2016.

The study found that there were a number of long-term regional work unit programs in the Pekanbaru city government. The city government has accommodated for the work and budget plan and budget implementation document. The programs have contributed a long-term plan to be included in the work plan and annual budget of the Pekanbaru city government. In addition, program accommodation contributed the highest weight in the assessment. In 2016, the highest achievement of program accommodation suggested that the Pekanbaru City government was committed in fixing and implementing the development for the region as indicated by the scoring in 2014 and 2015.

Table 4: Local Governments Lowest Rank:
Participation Principle (2015-2017)

Year	Province	District / City	Score
2015	Prov. West Jawa	District West Bandung	0.001
2015	Prov. East Java	District Ngawi	0.001
2016	Prov. Gorontalo	District Pohuwato	0.002
2017	Prov. West Sumatera	City Solok	0.004
2015	Prov. South Sulawesi	District Bone	0.006

Meanwhile, the lowest scoring on the principle of participation, an average of 0.001 to 0.006 was obtained by the West bandung district, from the West Java provincial government. A possible explanation is that the number of work plan programs through the work and budget plan and budget implementation document by the West Bandung district government was very low. The achievements of programs that have been planned for the long term were not implemented due to limited budget.

Principle 2: Fairness

The second principle in assessing the application of the GPG is the principle of fairness. According to Smith (2007) the fairness principle entails that a governance authority gives due regard to human, civil and political rights as well as those of indigenous peoples. The principles of fairness were developed because the traditional formal legal approaches were too narrow for adequate government control (Addink, 2019). From the IGI indicator in four (4) arenas, only four (4) indicators were from the Government arena, only two (2) indicators were from the Bureaucracy arena, and only one (1) indicator was from the Civil Society arena. It generated nine (9) indicators for thevfairness principle.

The principle of fairness had nine (9) IGI indicators related to twenty-three (23) of the Evaluation of Local Government Performance Report. The IGI indicators consisted of: (a) institutionalization of women's protection and empowerment efforts, (b) Government budget for health (non-personnel expenditure) per capita (adjusted to the Construction Expenses Index), (c) Government budget for education divided by the number of students up to education level of 9 (nine) years (adjusted to the construction cost index), (d) equal opportunity for audience/interaction between various groups of society and the Government (e) the percentage of births that medical

assistance (doctors and midwives) for the total birth rate, (f) public services that do not discriminate against marginalized groups (for example: women, the poor, children, disabilities, the elderly, HIV / AIDS), (g) quality working groups for gender mainstreaming in the provinces, (h) non-discriminatory procurement of goods and services from the provincial government, and (i) the variety/scope of issues that CSOs advocate for and monitor. These nine (9) indicators were chosen because they were related to twenty-three (23) of Evaluation of Local Government Performance Report.

Ranking of Scoring and Rating

There were fifteen (15) indicators that met the criteria from twenty-three (23) indicators. The score results of component was extracted using the PCA method. There were eight (8) components which represented the principle of fairness.

The following are the results of the scoring obtained in 5 district and city level local governments with the highest and lowest scores in Table 5 and Table 6, respectively.

Table 5: Local Governments Highest Rank: Fairness Principle (2015-2017)

Year	Province	District / City	Score
2017	Prov. East Java	District Blitar	1.477
2015	Prov. West Sumatera	District Limapuluh Kota	1.352
2016	Prov. Riau	District Meranti Island	1.273
2016	Prov. East Java	District Blitar	1.202
2016	Prov. West Java	District Ciamis	1.105

The results of top five (5) district and city level local governments were with the value from 1.477 to 1.105. The highest score was 1.477 by the Blitar district government from the provincial government of East Java in 2017 and 2016. The Blitar district government achieved a score of above 99%. They were able to maintain the scores for three years at the primary and secondary school levels. In addition, there was evidence that the Blitar district government had an increasing score on the principle of justice which included the availability of regulations on street vendors and sex workers, public consultations, as well as the availability of e-procurement and public service standards.

Table 6: Local Governments Lowest Rank: Fairness Principle (2015-2017)

Year	Province	District / City	Score
2017	Prov. South Sulawesi	District East Luwu	0.001
2017	Prov. East Java	District Malang	0.002
2015	Prov. Bangka Belitung Island	District Bangka	0.002
2016	Prov. South Sumatera	District Lahat	0.002
2016	Prov. South Kalimantan	District Tapin	0.002

Meanwhile, Table 6 shows five regional governments with the lowest rank for principle of fairness. The East Luwu district government from the South Sulawesi provincial government obtained the lowest rank with a value of 0.001 in 2017. The number of non-dropping out of school in the East Luwu district government was very low, which means that many children had dropped out from schools. Consequently, many children have not received appropriate education in the area. This indicated that good public governance was weak in the region. In addition, the availability of regulations related to street vendors and prostitutes, public consultations, and public service standards were also not available and have not been regulated by the local government.

Principle 3: Accountability

The third principle was the principle of accountability. Lockwood (2010) mentioned that accountability concerns with allocation and acceptance of responsibility for decisions and actions, the extent to which a governing body is answerable to its constituency, the extent to which a governing body is 'answerable to 'higher level' authorities, and allocation of responsibilities to those institutional levels that best match the scale of issues and values being addressed. The principles of accountability were developed because the traditional formal legal approaches were too narrow for adequate government control (Addink, 2019). From the IGI indicator in four (4) arenas, five (5) indicators were from the Government arena, one (1) indicator was from the Bureaucracy arena, one (1) indicator was from Civil Society arena, and only one (1) indicator was from Economic Society arena. Finally, a total of eight (8) indicators was included to form the accountability principle.

This principle of accountability consisted of eight (8) IGI indicators consisting of: (a) Matching the Regional Development Program

Priority Achievement Targets with the Provincial Government's Annual Achievements, (b) Ratio of Realization of Regional Laws Ratification Compared to the Number of Regional Legislation Plans, (c) Timeliness in Ratification of Regional Budget Laws, (d) Ratio of Grants / Subsidies and Social Assistance Expenditures to Goods / Services and Capital Expenditures, (e) Commitment of Legislative Councils Members to Fight for Public Interest / Aspirations, (f) Audit Opinion on Provincial Annual report, (g) Institutional Program and Financial Reports, and (h) Business Sector Compliance in Paying Taxes / Levies.

The IGI indicators were related to several indicators that originated from the of Evaluation of Local Government Performance Report and Local Government Financial Reports. These eight (8) indicators were chosen because they were related with twenty-seven (27) of Evaluation of Local Government Performance Report and Local Government Financial Reports information data.

Ranking of Scoring and Rating
There were twenty-eight (28) indicators that met the criteria. The score results of component extraction using the PCA method and nine (9) components were formed to represent the principle of accountability. Table 7 and 8 show five (5) district and city level governments with the highest value and lowest score, accordingly, from 2015 to 2017 on the principle of accountability.

Table 7: Local Governments Highest Rank:
Accountability Principle (2015-2017)

Year	Province	District / City	Score
2016	Prov. North Kalimantan	District Nunukan	1.573
2015	Prov. North Sumatera	District Karo	1.486
2014	Prov. Gorontalo	District Bone Bolango	1.047
2014	Prov. North Sumatera	District Karo	1.034
2016	Prov. Riau	District Meranti Island	1.017

The results showed that level local governments that obtained the highest scoring rank in the 2015-2017 period was the Nunukan district government from the provincial government of North Kalimantan in 2016. The study found that the performance aspect of the percentage of

livable houses achieved by the Nunukan district government in 2016 was 7% higher than that achieved by the Karo district government in 2015. The existence of a community satisfaction survey owned by the Nunukan district government in 2016 was also higher than the Bone Bolango district government in 2014. Basically, the top five district and city governments had a fairly high gross school enrollment rate and net school enrollment rate. This indicated a high level of good school participation in the area. The passing rates from primary and secondary school in the top five almost reached a perfect score of 100%. This result implied that the education sector on the island of non-Java is adequate for the education level from school participation, graduation, and continuing school rates.

Table 8: Local Governments Lowest Rank:
Accountability Principle (2015-2017)

Year	Province	District / City	Score
2014	Prov. West Java	West Bandung	0.000
2017	Prov. Riau	Kampar	0.001
2014	Prov. East Java	Bangkalan	0.001
2015	Prov. Riau	Siak	0.001
2015	Prov. West Nusa Tenggara	West Lombok	0.002

On the other hand, there were five (5) district and city level local governments with the lowest scores with a range value of 0.000 to 0.002. The lowest rank was West Bandung district government in the West Java province, with a score of 0.000 in 2014. The found that the gross enrollment rate or net enrollment rate in 2014 in district West Bandung was classified as low. Eventhough, enrollment rate for primary school level was high with a value of 94.2%, junior school and high school levels were lower with a value of 44.1% and 12.2%, respectively. The rate of continuing school at the primary school level was only 6%. This showed that scool participation was still low in the region and there were still many children who did not have access to formal education in schools.

Principle 4: Transparency

According to Birkinshaw (2005), transparency means access to the relevant documentation for understanding the reasons behind governmental actions. Transparent information creates trust among stakeholders. It also facilitates construction of a reasoned and argument by stakeholders

to measure government actions. Government should be accountable for their actions and decisions. However, it is difficult if the government has a monopoly power over the available information. The principle of transparency is an essential element and has received a considerable attention from the government. To fulfill public interest, citizens demand more information on what the government is doing.. Especially in the digital era, the community has better access to the government, and expecte more openness from the government. From the IGI indicator in four (4) arenas, only one (1) was from the Government arena. There were three (3) indicators from the Government arena that generated three (3) indicators for the transparency principle.

The principle of transparency consisted of three (3) IGI indicators: (a) Ease of Access to Regional Regulations and Non-Government Budgeting Regulations, (b) Ease of Access to Completeness of Government Budgeting Documents, and (c) Quality of Governor's Communication in Coordinating Development. There were three (3) indicators related to three (3) Evaluation of Local Government Performance Report.

Ranking of Scoring and Rating

There were 3 (three) principles that met the criteria and the score from the PCA method suggested that 1 (one) component was formed to represent the principle of transparency. The following are the scoring obtained for the top five (5) district and city level local governments with the highest and lowest scores for the period 2015 to 2017 on the principle of transparency.

Table 9: Local Governments Highest Rank:
Transparency Principle (2015-2017)

Year	Province	District / City	Score
2015	Prov. East Java	District Sidoarjo	10.242
2015	Prov. East Java	District Pacitan	6.609
2015	Prov. East Java	District Lamongan	4.208
2016	Prov. Riau	District Meranti Island	3.754
2015	Prov. West Java	District Kuningan	3.300

Table 9 presents the top five (5) highest ranks on the principle of transparency. The results indicated that local governments at the district and city of East Java island had dominated the ranks with scores from 10.242 to 4.208 for Sidoarjo, Pacitan and Lamongan in 2015. The study

found that these top five (5) district and city governments hada proper local government website with information that the citizens can access. In addition, the Sidoarjo district government had a higher number of local government management information systems than others. This is one of the contributing factors for the Sidoarjo district government to be in the top position.

Table 10: Local Governments Lowest Rank:
Transparency Principle (2015-2017)

Year	Province	District / City	Score
2015	Prov. Lampung	District West Lampung	0.009
2017	Prov. South Sulawesi	District Sinjai	0.009
2017	Prov. South Sumatera	District Musi Rawas	0.009
2015	Prov. South Kalimantan	District Banjar	0.011
2015	Prov. Gorontalo	District Pohuwato	0.012

Table 10 shows five (5) district and city level local governments with the lowest rank. There were two districts that had the same value of 0.009. They were the district of West Lampung in 2015, Sinjai and Musi Rawas in 2017. They study observed that these local governments had a low score for the same reasons. There was minimal information available for the public to access on their websites. The local goverments had only one management information system. Whereas for the district governments of Banjar, there were two local government management information systems, but the number was still relatively low.

Principle 5: Efficiency

The fifth principle was efficiency. OECD (2015) defines efficiency as the ability to produce quality public outputs, including services delivered to citizens, at the best cost, and ensures that outputs meet the original intentions of policymakers. In general, efficiency can be achieved under the conditions of maximizing the results related to the resources used. It is calculated by comparing the effects obtained in their efforts, in other words, how much resources can the government can efficiently utilize. From the IGI indicator in four (4) arenas, one (1) indicator was from the Government arena, two (2) indicators were from the Bureaucracy arena, and one (1) indicator was from the Civil Society arena. Thus, there were four (4) indicators for the efficiency principle.

In this principle, there were four (4) IGI indicators with two (2) other indicators related to Evaluation of Local Government Performance Report. Meanwhile, the other two (2) indicators were obtained directly from Local Government Financial Reports. The IGI indicators contained in this principle consisted of: (a) Ratio of Employee Expenditure (Direct + Indirect) to Total Government Budget, (b) Budget Ratio for Apparatus Expenditure (Direct and Indirect) to Total Provincial Public Expenditure, (c) Services for Investment Management, and (d) Efficiency CSO advocacy and monitoring activities. These four (4) indicators were related to two (2) Evaluation of Local Government Performance Report and the remaining two (2) were from form of Local Government Financial Reports information.

Ranking of Scoring and Rating

All 4 (four) principles met the criteria. Using the Principal Component Analysis (PCA) method, one (1) component was formed to represent the principle of efficiency.

Table 11: Local Governments Highest Rank: Efficiency Principle (2015-2017)

Year	Province	District / City	Score
2015	Prov. Riau	District Rokan Hilir	3.880
2014	Prov. Riau	District Rokan Hilir	3.773
2014	Prov. East Kalimantan	District North Panajam Paser	3.647
2015	Prov. East Kalimantan	District Berau	3.338
2016	Prov. Riau	District Meranti Island	3.262

Table 11 shows the results for the highest ranking on the principle of efficiency. District Rokan Hilir in the Riau provincial government had thehighest scores for two consecutive years in 2014 and 2015 with values of 3.773 and 3.880, respectively. The study found that for the Rokan Hilir district, the local government had established a community satisfaction index, and the number of investment approvals achieved was also very high, with a total of 8,523 agreements.

Table 12: Local Governments Lowest Rank: Efficiency Principle (2015-2017)

Year	Province	District / City	Score
2016	Prov. East Java	District Sampang	0.000
2014	Prov. East Java	District Gresik	0.002
2017	Prov. East Java	District Sampang	0.009
2017	Prov. Gorontalo	District Boalemo	0.013
2015	Prov. Lampung	District Tanggamus	0.013

Table 12 shows the lowest five district and city level local governments with a range value from 0.000 to 0.013. Three of the lowest value for the efficiency principle were from the East Java provincial government, the Sampang and Gresik district government with a range scoring result of 0.000 to 0.009. Sampang ranked the lowest for two consecutive years in 2016 and 2017.

Principle 6: Effectiveness

Effectiveness describes how government performance can be achieved and is beneficial to the stakeholders. According to Addink (2019), there are two main elements of effectiveness: the qualities and the ability to produce the desired effects. It can be used either to dictate that the facts adhere to the law (if it operates as a governing principle) and new law and legal status adapt the facts (if it operates as an assessment of the factual reality). Both sides of the principle are relevant in the legal concept of the principle of effectiveness. From the IGI indicator in four (4) arenas, six (6) indicators were from Government arena, two (2) indicators were from the Bureaucracy arena, and three (3) indicators were from Economic Society arena. Thus, there were eleven (11) indicators for the effectiveness principle.

There were eleven (11) IGI indicators with fourteen (14) other indicators originating from the Local Government Performance Report, Local Government Financial Reports, and Central Statistics. IGI indicators in this principle consisted of: (a) Regulation on Environmental Protection, (b) Capita Growth Rate, (c) Poverty Rate, (d) Open Unemployment Reduction Rate, (e) Gap Rate (Gini) Ratio), (f) Capability of the Business Sector in Resolving Disputes with the Community, (g) Ratio of Total Realized to Total Revised Government Budget, (h) Score of Human Development Index, (i) Investment Growth, (j) Quality of Convenience Doing Business and

Provincial Business Climate, as well as (k) Employment Absorption Rate or Number of Employment Created. These fourteen (14) indicators were chosen because they have a relationship with seven (7) Local Government Performance Report indicators, two (2) Local Government Financial Reports information data and five (5) Central Statistics information data.

Ranking of Scoring and Rating

There were only 11 (eleven) indicators that met the criteria, the results from the Principal Component Analysis (PCA) method suggested that two (2) components should be considered to represent the principle of effectiveness.

The following Table 13 and 14 consist of five (5) local governments with the highest score and the lowest score on the principle of effectiveness.

Table 13: Local Governments Highest Rank:
Effectiveness Principle (2015-2017)

Year	Province	District / City	Score
2016	Prov. Lampung	District Tanggamus	3.392
2016	Prov. Papua	City Jayapura	2.762
2015	Prov. North Sumatera	District Samosir	2.637
2016	Prov. Riau	District Meranti Island	2.610
2014	Prov. East Java	Magetan	2.304

As shown in Table 13, the highest ranking on the principle of effectiveness was the Tanggamus district government from the provincial government of Lampung, with a score of 3.392 in 2016. The study also observed that the poverty level in the Tanggamus district was relatively low at 5.16% in 2016. There were also many active cooperatives of 87.2% in this district. These are among the contributing factors for the Tanggamus district to be among the highest ranked in the 2015-2017 period.

Table 14: Local Governments Lowest Rank:
Effectiveness Principle (2015-2017)

Year	Province	District / City	Score
2015	Prov. Gorontalo	District Pohuwato	0.000
2015	Prov. Central Java	District Purbalingga	0.001
2015	Prov. North Kalimantan	District Nunukan	0.002
2017	Prov. Gorontalo	District Boalemo	0.003
2016	Prov. Gorontalo	District Boalemo	0.003

Meanwhile, the lowest ranked was the provincial government of Gorontalo. There were two districts that appeared to be the lowest with the value of Pahuwato 0.000 in 2015. Meanwhile, the Boalemo district had a value of 0.003 for two consequetive years in 2016 and 2017. The study observed several contributing factors including the district did not have regulations on the cleanliness of the district capital. The poverty rate in this district was relatively high at 20.69%. In 2016, there was no resolution of the state land case and location permit. Moreover, the Pahuwato district had no evidence on growth in their government investment growth.

Overall Scoring and Rating using the Mutlidimensional Index

Based on IGI, the multidimentional GPG index was developed comprising of six (6) principles: participation, fairness, accountability, transparency, efficiency, and effectiveness. This study used secondary data obtained from the annual reports of Local Government Performance, Local Government Financial Reports and the Central Statistics department. There are limitations of available data and information to use. Hence, from the eighty-nine (89) indicators issued by IGI in 2012, this study only made use of forty-two (42) indicators because several indicators in the IGI were questionnaires and surveys, while this study utilized secondary data.

In summary, the first principle was participation which consisted of seven (7) IGI indicators, which were consistent with twelve (12) indicators in the Local Government Performance Report. Second, the principle of fairness consisted of nine (9) IGI indicator and related to twenty-three (23) indicators with the Local Government Performance Report. Third, the accountability principle consisted of eight (8) IGI indicators related to twenty-seven (27) indicators of the Local Government Performance Report and Local Government Financial Reports. Next, the principle of transparency

consisted of three (3) IGI indicators related to three (3) indicators of Local Government Performance Report. The principle of efficiency consists of four (4) IGI indicators, which are compatible with two (2) indicators to the Local Government Performance Report and the remaining two (2) indicators using Local Government Financial Reports. Lastly, the principle of effectiveness consisted of eleven (11) IGI indicators, which were compatible with seven (7) indicators of Local Government Performance Report, two (2) indicators of Local Government Financial Reports and remaining two (2) indicators from the Central Statistics department.

Ranking of Scoring and Rating on the Dimensional GPG Index

In ranking overall scoring and rating of local governments using the dimensional GPG index. Consistent with the previous process by using the Principal Component Analysis (PCA) method, three (3) components were formed to represent the Index. Table 15 and 16 show five (5) district and city level of local governments with the highest and lowest score from 2015 to 2017.

Table 15: Local Governments Highest Rank: GPG Index (2015-2017)

Year	Province	District / City	Score
2016	Prov. Riau	District Meranti Island	3.305
2015	Prov. Riau	District Bengkalis	3.291
2015	Prov. North Maluku	District North Halmahera	2.772
2015	Prov. North Sumatera	District Karo	2.748
2016	Prov. Riau	City Pekanbaru	2.661

As shown in Table 15, the highest ranking in the overall Index from 2015-2017 was Meranti Island district from the provincial government of Riau with a score of 3.305 in 2016. The study also found that Meranti Island district was among the top five highest ranked for each principle. The results for overall and individual scoring and rating District government has a strong commitment for poverty reduction in the budget allocation. The poverty rate declined as many as 2.70% in the following year. The district also committedin Health and Education, where the allocation in the total government budget for health and education was above 20%.

Table 16: Local Governments Rank Lowest: GPG Index (2015-2017)

Year	Province	District / City	Score
2015	Prov. Gorontalo	District Pohuwato	0.003
2016	Prov. West Java	District Bogor	0.004
2014	Prov. East Java	District Malang	0.005
2016	Prov. East Java	District Bondowoso	0.007
2017	Prov. Sp. Region of Yogyakarta	District Sleman	0.008

Meanwhile, the lowest rank on the GPG Index was the Pahuwato district from the provincial government of Gorontalo with a score of 0.003 in 2015 as presented in Table 16. The study identified several contributing factors to the finding. In 2015, the mayor underwent a trial for corruption in the local court. Moreover, several conditions of transparency in the government arena were also relatively low, in particular on the indicators of accessibility to public documents, such as regional regulations, non-budgetary governor's regulation documents, budget expenditure accountability report, the use of aspiration funds, reports on coordination of development programs by the governor and official visit activities of the legislative council. Furthermore, poor performance in ensuring availability of mechanisms for participation may have been the primary constraint for the bureaucracy in improving the quality and sustainable public services.

CONCLUSION

This study provides preliminary evidence on the level of good public governance in local governments in Indonesia from 2015 to 2017. The study measured the level of GPG using a multidimensional Index. The study utilised secondary data from the annual reports of the Evaluation of performance of local government implementation (EKPPD), the Local government financial report (LKPD) and the Central Bureau of Statistics (BPS) for the year 2015 to 2017. The GPG measurement was based on the scoring on the principles of the Indonesian Governance Index (IGI), IGI indicators and Evaluation of Local Government Performance (EKPPD). The findings were presented in two dimensions; first, application of each principle of good public governance, and second, overall level of GPG for the district and city levels for the local government in Indonesia from 2015 to 2017. The results showed that from a comprehensive descriptive analysis,

those indicators which significantly related to the GPG in the IGI and the EKPPD were found to be have similar meanings. The findings suggested that indicators form the IGI and the EKPPD can be used as indicators for the GPG principles. Second, the findings revealed that there were many local governments which obtained below average on the quality of application of the GPG principles. There were also evidence on the lack of information regarding which indicators need to be improved in each region. In fact, there was lack of awareness among district and city level local governments on the importance of applying the GPG principles in the government system. Third, there was a limited evaluation on the implementation of the GPG in local governments by the central government. Techinically, the evaluations conducted by the central government were rather limited to performance evaluations. Nevertheless, the implementation of the GPG principles by the local government showed an increasing trend for three years. Finally, the initial findings could be useful for the local governments to measure the level of good public governance using a score from the local government annual report. The mulitidimensional GPG index can be one of the best alternatives for measuring accountability rather than using a single dimension.

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