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Developing a Method to Measure Public Prosperity Gap between Ideal and Current Conditions of a Local Government: A Public Financial Management Perspective

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Abstract: *This study aims to develop a method for measuring the public prosperity gap between the ideal condition, as stated in the constitution, and the current condition of a local government, utilizing the Purchasing Power Parity (PPP) Theory and the concept of service-level solvency. This study uses the City of Melbourne as a representation of ideal conditions and the City of Jakarta as a representation of current conditions. The model developed in this study can accurately measure the prosperity gap that occurs and assess its severity. The limitation of this study is the use of the service solvency in general terms to measure the prosperity of the community. The use of specific solvency should improve the accuracy of the prosperity gap analysis. However, these limitations do not reduce the validity of the model.*

Keywords: *Local Government; Prosperity Gap; Purchasing Power Parity (PPP); Service Solvency.*

Abstrak: *Penelitian ini bertujuan untuk mengembangkan metode untuk mengukur kesenjangan kesejahteraan masyarakat antara kondisi ideal sebagaimana tercantum dalam konstitusi dan kondisi pemerintah daerah saat ini dengan memanfaatkan Teori Purchasing Power Parity (PPP) dan konsep service-level solvency. Penelitian ini menggunakan Kota Melbourne sebagai representasi kondisi ideal dan Kota Jakarta sebagai representasi kondisi saat ini. Model yang dikembangkan dalam penelitian ini dapat mengukur secara akurat kesenjangan kesejahteraan yang terjadi dan seberapa parah kesenjangan tersebut. Keterbatasan penelitian ini adalah penggunaan solvabilitas pelayanan secara umum untuk mengukur kesejahteraan masyarakat. Penggunaan solvabilitas spesifik akan meningkatkan keakuratan analisis kesenjangan kesejahteraan. Namun keterbatasan tersebut tidak mengurangi validitas model.*

Kata Kunci: *Pemerintah Daerah; Kesenjangan Kesejahteraan, Paritas Daya Beli (PPP); Solvabilitas Layanan*

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1. Introduction

Achieving a prosperous society is a top priority for countries worldwide. In Indonesia, this commitment is explicitly stated in the constitution. The Indonesian government bears the responsibility to achieve social justice, general welfare, and the prosperity of its people, as stated in the fourth paragraph of the Preamble to the 1945 Constitution (Manan, 2004). To fulfill this responsibility, the government undertakes various public functions in health, education, infrastructure, social services, and other areas. Implementing these functions gives rise to rights and obligations that can be assessed financially, and all are managed in a state financial management system (Republic of Indonesia, 2003).

Several indicators are commonly used to measure prosperity, including the Human Development Index (HDI) and Gross Domestic Product (GDP). Cooper and Schindler (2014) outlined three criteria for a good measure: validity, reliability, and practicality. Validity refers to the extent to which a test measures what it purports to measure. Reliability pertains to the consistency and precision of the measurement procedure. Practicality encompasses the economy, convenience, and interpretability of a measure. Despite its centrality in measuring a nation's prosperity, GDP has faced criticism for overlooking important aspects of prosperity, which compromises its validity (see Bate, 2009; Moulton, 2018; Kubiszewski, 2019). Although HDI expands the coverage of prosperity measures, this measure is not easily obtained on a timely basis. For instance, in Indonesia, the HDI for a given year is released by the Indonesian National Statistics Bureau approximately five months after the end of the year. Similarly, the HDI released by the United Nations Development Programme (UNDP) is not immediately accessible. At the time this paper is written, the most recent publicly available HDI data is those of 2023. Meanwhile, the calculation of HDI involves a complicated formula, hence, it does not meet the practicality criterion of a good measure.

From the practical perspective, the government generally measures prosperity by achieving indicator targets that it sets itself, such as per capita income. However, this approach has a fundamental weakness: these indicators and targets are subjective because the government itself determines them, making them vulnerable to bias, manipulation, or leniency in evaluation. We argue that the existing model is inadequate. The government should not only assess its performance based on the achievement of its targets but also consider the extent to which the actual welfare conditions of the community still fall short of the ideal objective and universal prosperity standards. The government can obtain a more objective and in-depth picture of the challenges by measuring the prosperity gap. This approach can also increase awareness and drive the continued improvement of public services, ultimately leading to true prosperity.

Therefore, this study aims to develop an analysis model of the prosperity gap between ideal conditions, as reflected in constitutional values, and the actual conditions of people's prosperity, using a public financial management perspective. This perspective was chosen because public financial management is one of the primary foundations for providing quality public services (Prabowo, 2021; Jones et al., 2020; Flink & Molina, 2020). Additionally, our model is built upon a relatively less sophisticated formula using data that is accessible to the public in a timely manner, which are fixed assets data from local government financial statements and population data from regional statistical reports.

This study presents a novel approach to analyzing the prosperity gap, both in terms of magnitude and severity, by applying the Purchasing Power Parity theory and the concept of service solvency. These two analytical tools allow for objective and cross-regional comparisons of prosperity conditions. Using audited financial statements and economic data, the analysis compares the City of Melbourne, representing an ideal level of prosperity, with the City of Jakarta, which reflects current conditions. The findings reveal a substantial disparity between the two cities. Melbourne can provide public services in both quantity and quality at approximately twice the level of Jakarta. In addition, Jakarta's current prosperity level is estimated to be 19 years behind that of Melbourne. This study offers academic contributions by introducing a novel method for accurately measuring the prosperity gap in local public welfare. The model is applicable across both developing and developed countries, as it accounts for economic differences through the use of the Purchasing Power Parity (PPP) approach. The insights provided by this model aim to raise awareness among top government executives about the need to enhance public financial management policies, thereby accelerating the realization of public prosperity as mandated by the constitution. Accordingly, regional development and financial planning officials are encouraged to adopt this model in shaping regional development and budgeting strategies.

The structure of this article is divided into five sections. The first section presents the background and motivation for the research as described. The second section examines the concept of prosperity, its role as a national objective, and the financial stability of local government services. The third section explains the method of equalizing economic conditions between countries through the PPP theory and the prosperity gap analysis model, which is based on service capacity and time aspects. The fourth section presents the results and discussion, while the final section concludes with the main findings, outlining the implications and limitations of this research.

2. Literature Review

2.1 Concept of People's Prosperity

From an economic perspective, the prosperity of people in a region or country is measured by the value of GDP, calculated either as the total value or on a per capita basis (Bate, 2009). The GDP describes the total value of all goods and services produced in the economy of a region or country. Therefore, the higher the GDP per capita, the higher the level of prosperity of the people. However, GDP has failed to describe the essential elements of prosperity, such as health, security, and freedom (Bate, 2009). Another important critique of GDP is that it does not capture wealth distribution (Kubiszewski, 2019), environmental harm, and contributions from informal economic activities (Moulton, 2018). Supporting this critique, Slesnick (2019) provided empirical evidence that GDP fails to accurately reflect relative welfare levels and long-term trends in social welfare, even when used for comparisons within a single country. Failure to capture these essential aspects of prosperity could lead to misguided government policy decisions.

Another notable indicator of prosperity is the Human Development Index (HDI), which measures welfare across three dimensions considered essential to human development: health, education, and income (for example, see Ardiansyah, 2015). This indicator is widely used because it ensures that the significance of human welfare is not limited to economic factors (Pereira, 2014). Since its inception in 1990, HDI has received many critiques, including inadequate dimensions and indicators (for example, see Anand & Sen, 2000; Ranis et al., 2006; Kelley, 1991), equal weights assigned to each dimension (for example, see, Wu et al. 2014; Lind 2010; Kelley 1991), and it measures a single value is considered for a whole country, without taking into account regional differences. (for example, see Kelley, 1991; Grimm et al., 2008). Although HDI captures broader dimensions of prosperity than GDP, this indicator does not fully reflect the ability of local governments to manage their resources effectively and achieve community welfare. Measures that directly provide insight to local governments are considered more accurate in policy-making.

UN-Habitat (2013) provides a broader perspective in defining prosperity. Prosperity is a shared and inclusive condition that is achieved by reducing poverty, promoting equality, and maintaining environmental sustainability (UN-Habitat, 2013). This perspective highlights that prosperity is centered on the conditions of human life (Wong, 2015). The ideal condition of community prosperity is achieved by fulfilling community needs in various ways, thereby creating livable living conditions (Kumolo et al., 2017; Retnaningsih et al., 2018). Thus, the criterion of prosperity is the comfortable living conditions of the people. Abdullah and Kalianan (2008) also state that the convenience of the community, whether personal or collective, is a reflection of the government's success in providing services (Abdullah & Kalianan, 2009).

Several international survey agencies have tried to measure prosperity based on human living conditions. The Legatum Institute measures a country's prosperity using a combination of economic variables and quality-of-life indicators (Bate, 2009). The Mercer Quality of Life Index surveys cities in various countries, using 39 factors that reflect the value of quality of life for expatriates (foreigners) living in those cities. The Economist Intelligence Unit (EIU) measures living conditions in 140 cities worldwide based on 30 quantitative and qualitative measures across five general categories:

stability, health, culture and environment, education, and infrastructure (Economist, 2019).

According to the 2019 EIU survey, cities ranked among the top 10 most livable have adequate public funding for health, education, and infrastructure (Economist, 2019). This indicates that government executives, as managers of public funds, play a crucial role in developing the city by providing quality facilities for public services (Soares et al., 2015; Warsame & Ireri, 2017; Sarosa, 2020). Harisalo and McInerney (2008) also note that the provision of public services by the government is one of the key benchmarks for measuring the level of community prosperity, particularly in meeting the basic needs of the community, such as education, health, social security, and welfare (Harisalo & McInerney, 2008). Thus, from a public service perspective, a prosperous city can provide public services to meet the needs of its people. Operationally, it is reflected in the top 10 most livable cities in the world.

2.2 People's Prosperity as the Main Goal of Countries

Across the world, countries strive to provide prosperity for their people (Harisalo & McLnerney, 2008). For example, the United States, Sweden, and Switzerland state in their constitutions that the welfare of society is one of the primary goals of the state (United States of America, 1787; Kingdom of Sweden, 1974; Swiss Confederation, 1999). Likewise, the purpose of the Republic of Indonesia, as stated in the constitution, is to create a prosperous society (Republic of Indonesia, 1945). To achieve this goal, the central government and local governments prepare budgets annually (Republic of Indonesia, 2003). Thus, the budget is one of the government's instruments in achieving its goals.

The primary objective of budget management is to ensure that budget allocations are directed towards programs and activities that yield the greatest benefit for the community (Lalvani, 2010; Mikesell & Mullins, 2011). Appropriate budget allocations are made according to priorities that can increase the effectiveness and efficiency of the government in providing services to the community(Kwan et al., 2016; Warsame & Ireri, 2017). Without adequate budget allocations, the government will struggle to enhance the quality and performance of its services (Overmans & Noordegraaf, 2014; Rubin, 2016; Flink, 2017).

2.3 People's Prosperity and Local Government's Service Solvency Capacity

A local government's service solvency refers to its capacity to provide and maintain the quality of public services desired by the community (Wang et al., 2007). The local government's service capacity comprises all resources owned and/or controlled by a local government that are utilized to provide services to the community (Ritonga, 2014). Adequate public service capacity in various aspects of community services (health, education, social protection, etc.) will improve the quality of people's lives (Sanderson, 1996). The capacity of these public services is a measure of community prosperity (Harisalo and McInerney, 2008). Thus, the level of people's prosperity can be measured based on the level of local government service capacity. In local government financial reports, this capacity is reflected in the book value of fixed assets.

Fixed assets are an indicator of the government's capacity to provide services to the community (Singla et al., 2018). The government's fixed assets are manifested in public facilities that are used to serve the community, such as school buildings, hospitals, infrastructure, markets, city parks, and public transportation. Additionally, fixed assets represent a form of public fund investment managed by the local government to serve the community (Rivenbark, 2000). Thus, the higher the value of fixed assets, the greater the capacity of local governments to serve their communities.

The local government's service solvency in this study is calculated using the ratio of fixed assets per capita, which represents the total book value of fixed assets[2], of fixed assets, divided by the total population. Until now, there has been no established threshold value to indicate how good or bad a service solvency ratio is. However, in general, the higher the local government's service solvency, the greater its capacity to serve its citizens (Ritonga, 2014).

[2] Book value is calculated from the cost of an asset after deducting accumulated depreciation

3. Research Method

3.1. Research Object

To apply the method developed in this study, the object used is the Metropolitan[3] Jakarta (hereinafter referred to as the City of Jakarta) and Metropolitan Melbourne (hereinafter referred to as the City of Melbourne). The condition of the City of Jakarta represents the current prosperity of the Indonesian local government. In contrast, the condition of the City of Melbourne represents the ideal prosperity that is aspired to as stated in the Indonesian constitution. However, the City of Jakarta has not been able to represent all local governments in Indonesia because the economic inequalities between regions in Indonesia are quite wide (Pangaribowo, 2018; Sukwika, 2018). However, in this study, the City of Jakarta is considered the best representation of Indonesia, which can be compared on a similar level to the City of Melbourne.

We chose the City of Melbourne as the ideal representation of prosperity, as stated in the Indonesian constitution because the Australian city has consistently ranked among the world's top 10 most livable cities. The City of Melbourne was ranked first for the most livable cities in the world for seven consecutive years from 2011 to 2017, then in 2018 and 2019; it was ranked second (Economist, 2019) and still in the top 10 for 2020-2024 (Economist, 2022)

We chose the City of Jakarta for three reasons. The main one is that it has equal environmental complexity with the City of Melbourne, particularly in terms of socioeconomic activities. The second reason is that the City of Jakarta is included in various international surveys, such as those conducted by YouGov (a UK-based survey institution), the Economist Intelligence Unit (EIU), the Center for Strategic and International Studies (CSIS), Mercer, and others. This means the international community has recognized the City of Jakarta as a representation of cities in Indonesia.

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[3] A Metropolitan area is defined as a large residential center consisting of one large city and several surrounding areas, with one or more large cities serving the surrounding area as a connecting point (or hub) with the surrounding cities. In general, metropolitan cities have a large population concentration, with integrated economic and social units, and are characterized by urban activities (Dardak et al. 2006).

The latest reason is that the City of Jakarta represents Indonesia at the World C40 Cities meeting. [4]hosted by the United Nations.

The City of Jakarta is managed autonomously by the Provincial Government of Daerah Khusus Jakarta (DKJ), which is divided into five municipal administrative areas. Meanwhile, the City of Melbourne comprises 31 local governments (State Government of Victoria, 2020). Thus, the financial condition of the City of Jakarta is reflected in the Consolidated Financial Statements of the Provincial Government of the City of Jakarta. In contrast, the financial condition of the City of Melbourne is described in the Combined Report of 31 local governments in the Metropolitan City of Melbourne.

3.2 Data and Data Collection Techniques

This study used secondary data. To measure the prosperity of the City of Jakarta, we used the consolidated financial statements of the Provincial Government of DKJ for the period 2017-2020, which the Supreme Audit Board of the Republic of Indonesia audited. Population data for 2017-2020 were sourced from the Indonesian Central Bureau of Statistics (Statistics Indonesia). The data for the financial report were obtained from the Audit Result Report of the Indonesian Supreme Audit Board. In contrast, the population data were obtained through the official website of Statistics Indonesia.

To measure the prosperity of the City of Melbourne, we use the combined financial statements of 31 local governments for the 2016/2017 – 2019/2020 period in the City of Melbourne metropolitan area, which have been audited by the Victorian Auditor General's Office (VAGO). Population data for 2017 – 2020 were sourced from the Australian Bureau of Statistics. The financial report data were obtained by downloading directly from the official website of each local government. Of the 31 local government financial report data sets, one local government's data could not be obtained because it

[4] C40 Cities is a network that connects 97 major cities worldwide, committed to taking progressive steps to address climate change and create a cleaner, healthier, and more sustainable future for their city environments. C40 represents more than 700 million people worldwide and a quarter of the global economy (c40.org, 2020).

was not available on the local government's official website; therefore, only 30 local government financial reports were used in this study. Population data were available on the official Australian Bureau of Statistics website.

To equalize currency values between the City of Jakarta and the City of Melbourne, we used Big Mac Index data published by the Economist regularly since 1984. Big Mac index data are available on the official website of the Economist (see www.economist.com/big-mac-index).

3.3 Data Analysis Techniques

There are three main stages in conducting data analysis of the model developed, namely (1) equalizing economic conditions between the City of Melbourne and the City of Jakarta by equalizing currency values; (2) analyzing the prosperity gap in terms of the service solvency; and (3) analyzing the prosperity gap in terms of time, as described below.

3.3.1 First Stage: Equalizing the Economic Conditions by Using the PPP Concept

We equalized economic conditions using the Purchasing Power Parity (PPP) concept[5]. The World Bank also carried out the equalization of economic conditions by comparing gross domestic product (GDP) and expenditure per capita among countries (World Bank, 2020). This equalization of economic conditions is useful for comparing financial information objectively between the City of Jakarta and the City of Melbourne, as the two cities present their financial information in different currencies: the Indonesian Rupiah (IDR) and the Australian Dollar (AUD).

Three steps were taken to equalize economic conditions between the two countries. The first step was to collect Big Mac index data for the period 2017–2020, obtained

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[5] The Purchasing Power Parity (PPP) concept is used to compare two different currencies. This concept states that the exchange rate of a currency is proportional to the level of commodity prices in the two countries being compared (Clements, Lan, and Seah, 2010). PPP theory assumes that under certain conditions (e.g., in the long run), the amount of costs incurred will be the same in any currency to buy a single commodity. We use Big Mac commodities produced by McDonald's outlets, which are available almost everywhere. Simply put, the amount of money spent on one Big Mac worldwide should be the same (Pakko and Pollard 2003).

from the official website of The Economist. The Big Mac index data consist of: (1) BigMac price data in Indonesia and Australia (at local exchange rates for each country); (2) Big Mac price data in the United States (in USD); (3) USD to IDR exchange rate data; and (4) USD to AUD exchange rate data. The data are presented in Table 3.

The second step was to convert the price of the Big Mac in Indonesia and Australia from the local exchange rates of each country to the USD exchange rate. This was done by dividing the price of the Big Mac in Indonesia and Australia by the USD exchange rate for each country (see columns H and I).

The third step was to calculate the adjustment rate, which is the equalization of the USD exchange rate to the USD-PPP rate using the Big Mac price in Indonesia and Australia (denominated in USD). The rate adjustment in Indonesia was calculated by dividing the price of a Big Mac in the USA by the price of a Big Mac in Indonesia (denominated in USD). The adjustment rate in Australia was also calculated in the same way.

3.3.2 Second Stage: Analyzing the Existence of Prosperity Gap

We analyzed the prosperity gap between the City of Jakarta and the City of Melbourne by examining the difference in service solvency, which is the ratio of fixed assets per capita for the City of Melbourne and the City of Jakarta. Service solvency refers to a local government's ability to provide and maintain the level of services it offers to its community. There are four steps taken to analyze the prosperity gap at this stage.

The first step was to convert the book value of fixed assets presented in the financial statements of each city to USD exchange rates so that the book value of fixed assets is presented in USD. It is essential to note that the book value of fixed assets is contingent upon the accounting estimate used by the reporting entities, including the useful life. Changes or differences in the accounting estimates used have an impact on fixed asset values presented in government financial statements through depreciation values.

The second step was to convert the book value of fixed assets, denominated in USD, using an adjustment rate based on the Big Mac price index so that the book value of fixed assets is presented in the USD-PPP exchange rate. The third step was to calculate the service solvency capacity of the City of Jakarta and the City of Melbourne by dividing the book value of fixed assets, presented in USD-PPP exchange rates, by the total population to determine the fixed assets per capita. Finally, the fourth step was to calculate the difference between the fixed assets per capita of the City of Melbourne and the City of Jakarta to measure the prosperity gap.

3.3.3 Third Stage: Analyzing the Intensity of Prosperity Gap

The prosperity gap in terms of time was analyzed by calculating how long it would take the City of Jakarta for its services solvency per capita to match that of the City of Melbourne. This time gap analysis is intended to provide insight into the intensity of the prosperity gap that exists. The assumptions underlying this analysis are (1) the quality of spending for the City of Jakarta and the City of Melbourne is constant over time, and (2) the financial management policies of the City of Jakarta and the City of Melbourne are constant.

To analyze the intensity of the prosperity gap, it is necessary to calculate the average growth rates of fixed assets and population. The average growth of fixed assets (in percentage) was calculated based on the arithmetic average of growth of fixed assets over the number of years studied. The growth of fixed assets was calculated by subtracting the value of fixed assets in year n from the value in year (n-1), dividing by the value of fixed assets in year (n-1), and then multiplying by 100%. The average growth of the population is also calculated in the same way. These growth figures are then used to project the growth of fixed assets and population for the following years. Then, projected fixed assets per capita are calculated each year by dividing the projected fixed assets for that year (n) by the projected population for the same year (n). The intensity of the prosperity gap is the difference between the year when the target ratio is achieved and the base year, which is the year 2019.

4. Results and Discussion

This section presents the results of the model developed consisting of (1) equalizing economic conditions, (2) prosperity gap analysis in terms of service capacity, and (3) prosperity gap analysis in terms of time.

4.1 Equalizing Economic Conditions

Table 1 shows the process of equalizing economic conditions between Indonesia and Australia. The comparison of Big Mac prices between Indonesia and Australia expressed in USD exchange rates, can be seen in columns H and I. Furthermore, the adjustment rate value for Indonesia and Australia is calculated by dividing the Big Mac price in the United States by the Big Mac price in Indonesia and Australia, which has been converted to the USD exchange rate (see columns J and K). The adjustment rate serves to equalize the exchange rates of Indonesia and Australia, ensuring both countries have comparable economic conditions (Pakko and Pollard, 2003; World Bank, 2020).

Table 1
Equalization of BigMac USD Price Index to USD-PPP

No	Date	Big Mac Price			Currency Rate		Big Mac Price (USD)		Adjustment Rate	
		Indonesia (IDR)	Australia (AUD)	U.S. (USD)	USD to IDR	USD to AUD	Indonesia	Australia	Indonesia	Australia
A	B	C	D	E	F	G	H = C/F	I = D/G	J = E/H	K = E/I
1	January 2015	27,939	5.30	4.79	12,480	1.23	2.24	4.31	2.14	1.11
2	July 2015	30,500	5.30	4.79	13,344	1.35	2.29	3.93	2.10	1.22
3	January 2016	30,500	5.30	4.93	13,947	1.42	2.19	3.73	2.25	1.32
4	July 2016	31,000	5.75	5.04	13,112	1.34	2.36	4.29	2.13	1.17
5	January 2017	31,000	5.80	5.06	13,329	1.36	2.33	4.26	2.18	1.19
6	July 2017	32,126	5.90	5.30	13,369	1.36	2.40	4.34	2.21	1.22
7	anuary 2018	35,750	5.90	5.28	13,359	1.25	2.68	4.72	1.97	1.12
8	July 2018	31,500	6.05	5.51	14,360	1.34	2.19	4.51	2.51	1.22
9	January 2019	33,000	6.10	5.58	14,090	1.40	2.34	4.36	2.38	1.28
10	July 2019	32,000	6.15	5.74	14,130	1.44	2.26	4.27	2.53	1.34
11	January 2020	33,000	6.45	5.67	13,670	1.45	2.41	4.45	2.35	1.27
12	July 2020	34,000	6.55	5.71	14,435	1.43	2.36	4.58	2.42	1.25
13	January 2021	34,000	6.48	5.66	14,125	1.30	2.41	4.98	2.35	1.14

Source: *The Economist: The Big Mac Index* Year 2015 – 2020 (data is modified)

According to Table 1, the adjustment rate in Indonesia is approximately twice that of Australia. This indicates that, for the same commodity, Indonesians must pay twice as much as Australians. Thus, it can be concluded that the purchasing power of Indonesians is approximately half that of Australians.

4.2 Analysis of the Prosperity Gap from the Service Capacity Aspect

In analyzing the prosperity gap in terms of service capacity in the City of Jakarta compared to the City of Melbourne, there are two steps taken: (1) equalizing the book value of the fixed assets of the City of Jakarta and the City of Melbourne to the USD-PPP exchange rate using the rate adjustment obtained in the previous section 4.1, and (2) calculating the difference in service capacity between the City of Jakarta and the City of Melbourne based on the service solvency ratio.

Tables 2 and Table 3 illustrate the process of converting the book value of fixed assets for the City of Jakarta and the City of Melbourne from local values to USD and USD-PPP exchange rates.

Table 2
Conversion of the City of Jakarta and City of Melbourne's Fixed Asset Values to USD

Year	Book Value of Fixed Assets		Exchange Rate to USD		Book Value of Fixed Assets (USD)	
	Jakarta (IDR)	Melbourne (AUD)	Jakarta	Melbourne	Jakarta	Melbourne
2017	353,005,073,768,652	66,171,463,000	13,359	1.36	26,424,513,344	48,655,487,500
2018	384,807,313,577,940	74,439,575,000	14,090	1.34	27,310,668,103	55,551,922,388
2019	403,450,885,984,552	75,134,058,000	13,670	1.44	29,513,598,097	52,176,429,861
2020	407,084,025,241,546	77,879,429,000	14,125	1.43	28,820,107,982	54,461,139,161

Table 3
Conversion of the City of Jakarta and City of Melbourne's Fixed Asset Values from USD to USD PPP

Year	Book Value of Fixed Assets (USD)		Adjustment Rate to USD-PPP		Book Value of Fixed Assets (USD-PPP)	
	Jakarta	Melbourne	Jakarta (January)	Melbourne (July)	Jakarta	Melbourne
2017	26,424,513,344	48,655,487,500	1.97	1.22	52,136,133,972	59,442,161,678
2018	27,310,668,103	55,551,922,388	2.38	1.22	65,067,418,478	67,795,382,440
2019	29,513,598,097	52,176,429,861	2.35	1.34	69,320,197,683	70,125,121,733
2020	28,820,107,982	54,461,139,161	2.35	1.25	67,767,517,143	67,891,838,105

Table 3 shows that the book value of fixed assets of the City of Jakarta and the City of Melbourne, after being converted to the USD-PPP exchange rate, show an increasing trend in value from 2017 to 2019. However, the values in both cities decreased in 2000, which was probably due to the COVID-19 pandemic. The City of Jakarta has fixed assets with a smaller value than the City of Melbourne. Nevertheless, the two cities have fixed assets with book values that are not much different. For example, in 2019, the book value of fixed assets for the City of Jakarta was USD-PPP 69,320,197,683, while for the City of Melbourne, it was USD-PPP 70,125,121,733. There is only a difference of USD-PPP804,924,050 (70,125,121,733 – 69,320,197,683) or 1.14% of the book value of the City of Melbourne's fixed assets.

The prosperity gap is calculated by comparing the fixed assets per capita of the City of Melbourne with those of the City of Jakarta. The book value of fixed assets per capita and the prosperity gap between both cities are shown in Table 4 below.

Table 4
Fixed Assets per Capita of the City of Melbourne and City of Jakarta

No	City	Fixed Asset (USD PPP)			Population			Ratio of Fixed Asset per Capita		
		2018	2019	2020	2018	2019	2020	2018	2019	2020
1.	Melbourne	67,795,382,440	70,125,121,733	67,891,838,105	4,708,144	4,841,328	4,927,276	14,400	14,485	13,779
2.	Jakarta	65,067,418,478	69,320,197,683	67,767,517,143	10,467,629	10,557,810	10,562,088	6,216	6,566	6,416
							Prosperity Gap	8,184	7,919	7,363

Table 4 shows that the City of Melbourne has a much larger service capacity than the City of Jakarta, which is more than double. This gap remains relatively consistent from year to year, indicating that the trend of narrowing the gap is ongoing. This situation means that the City of Melbourne can provide services to its residents in a quantity and quality that is twice as good as the City of Jakarta. This situation leads to greater prosperity and comfort for the residents of the City of Melbourne. In simple terms, one public facility in Melbourne is used by one person per facility.

However, in the City of Jakarta (for equivalent facilities), it is shared by more than two people per facility. To further explain the impact of service capacity on people's prosperity, we use the example of infrastructure assets. Infrastructure assets are one type of fixed assets. Infrastructure refers to the basic physical and organizational structures (e.g., buildings, roads, power supplies) necessary for the operation of a society or enterprise (Soanes, Catherine, and Stevenson 2008) and for providing services or inputs to other productive processes (NZIER, 2004). If the infrastructure assets are sufficient and of high quality, it will make an area more developed.

On the other hand, if the condition of infrastructure assets is insufficient and poor, it will disrupt various economic activities and reduce the community's comfort. Thus, the low service capacity per capita is a contributing factor to the prosperity gap currently experienced by the City of Jakarta. Therefore, the results of this study demonstrate that the service capacity per resident has a significant impact on the community's prosperity.

Based on the results above, the prosperity gap that occurs in the City of Jakarta could be narrowed in two ways. First, it should increase the capacity of fixed assets, among others, by (1) increasing the allocation of capital expenditures to accelerate the growth of fixed assets and (2) ensuring the allocation of maintenance expenditure in sufficient amounts to maintain the existing capacity of fixed assets. Second, local governments should have the ability to control the rate of population growth. The rate of population growth is a measure of the demand for government services (Narbón-Perpiñá & De Witte, 2017). A higher rate of population growth will lead to an increase in population size, which in turn will increase the demand for government services and vice versa. Thus, if a local government's capacity to provide services is constant, a high rate of population growth will lead to a higher prosperity gap, and vice versa.

4.3 Analysis of the Prosperity Gap from the Time Aspect

This section analyzes how long it will take for the City of Jakarta to achieve a solvency ratio for its services that matches the solvency ratio of the City of Melbourne, which is USD-PPP 13,779 per capita. This time gap analysis is expected to provide insight into the severity of the prosperity gap that occurs.

The growth of fixed assets and the population of the City of Jakarta is shown in Table 5.

Table 5
Growths of Fixed Assets and Population of the City of Jakarta

No		Year				Average Growth
		2017	2018	2019	2020	
1.	Fixed Assets	52,136,133,972	65,067,418,478	69,320,197,683	67,691,359,623	5.09%
2.	Population	10,322,777	10,467,629	10,557,810	10,562,088	0.93%

Furthermore, it is assumed that the growth rates of fixed assets and the population of the City of Jakarta are constant, at 5.09% and 0.93% per year, respectively. This growth rate is used to project population growth and fixed assets for the following years. According to the calculations in Table 6 below, the City of Jakarta can reach the fixed assets per capita of the City of Melbourne (i.e., USD-PPP 13,779) by the year 2039, when its projected fixed asset per capita will be USD-PPP 13,877. Thus, the prosperous condition of the City of Jakarta is currently 19 years behind (2039 – 2020) the ideal level of prosperity as stated in the constitution. In other words, the condition of the City of Jakarta in 2020 is equivalent to the condition of the City of Melbourne in 2001.

Table 6
Analysis of the Prosperity Gap from the Time Aspect

Year	Projected Fixed Assets with Growth 5.09% (USD-PPP)	Projected Population with Growth 0.93%	Fixed Assets per Capita
2020	67,767,517,143	10,562,088	6,416
2021	71,233,508,066	10,660,539	6,682
2022	74,876,768,183	10,759,908	6,959
…..	…..	…..	……
2038	165,356,017,764	12,481,847	13,325
2039	173,767,786,733	12,598,192	13,877

This 19-year lag represents a significant disparity in prosperity. This 19-year lag is equivalent to four times the duration of regional head elections to close the prosperity gap. This situation highlights a significant disparity between ideals and existing conditions in Indonesia. Moreover, in the rapid development of technology, 19 years is a very long time. For example, in the areas of health and education services, which are strongly influenced by technological advances, the quality and quantity of services provided by the City of Jakarta in 2020 are approximately equivalent to those provided by the City of Melbourne in 2001. There is no denying that the quality and services of health and education in 2020 are much more convenient and faster than in 2001.

However, considering the decreasing trend in the prosperity gap, as shown in Table 4, there is an opportunity for the City of Jakarta to catch up with the City of Melbourne. This condition aligns with the Convergence Theory, which posits that developing countries experience faster economic growth than richer developed countries (Barro & Sala-i-Martin, 1992; Monfort, 2008).

5. Conclusions, Implications, and Limitations of the Research

This study successfully demonstrated a model for analyzing the gap between the public's ideal prosperity and the actual prosperity of the existing public. The model can accurately and objectively illustrate the prosperity gap that occurs and its severity. The information provided by the model is expected to raise awareness among top executives of government, including both central and local governments, to improve state financial management policies and accelerate the achievement of people's prosperity, as mandated by the constitution. Therefore, regional development planning executives and regional government finance executives should use this developed model in regional development planning and financial planning. In addition, our findings could be used by donor agencies as a basis to direct their development programs and resources toward regions with pronounced prosperity gaps. This focused approach not only enhances the effectiveness of the aid but also contributes to more equitable and inclusive development outcomes. This study also makes an academic contribution by offering a new method for researchers to accurately measure the prosperity gap in a local government's public welfare. Furthermore, the prosperity gap measurement method presented in this study can be applied across countries, including both developing and developed nations, as differences in the complexity of economic conditions between countries can be mitigated by applying the PPP concept.

This research has two limitations. First, the use of a service solvency measure that is still too common to measure community welfare, namely the amount of local government fixed assets divided by the population. For further research, researchers should be able to use more specific service solvency ratios, such as education service solvency, health service solvency, or infrastructure solvency. The use of specific service solvency will increase the accuracy of welfare gap analysis for each regional development sector. Second, the assumption that growth in fixed assets and population is constant over a long period is less relevant in reality. Over a long period (for example, more than 5 years), growth in fixed assets and population tends to be unstable. Therefore, future studies could enhance this model by incorporating big data and predictive analytics approaches (see Rugani et al., 2018; Kum et al., 2015; Ragupathi and Ragupathi, 2014). The refined model could utilize historical government financial reports, demographic data from statistical agencies, and external socioeconomic indicators to provide dynamic forecasts. These data-driven predictions would allow the prosperity gap model to be more accurate for use in medium- to long-term development planning. In addition, model refinement can also be done by incorporating qualitative dimensions of prosperity, such as citizen satisfaction (see Stiglitz et al. 2009). The incorporation of both quantitative and qualitative dimensions enables a more nuanced understanding of prosperity, which is crucial for designing effective public policies.

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