

# For Better or For Worse? Assessing the Impact of Monitoring and Benchmarking on the Fiscal Performance of Local Governments in the Philippines

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**Abstract.** Financial monitoring and benchmarking systems have become prominent tools for various stakeholders to assess the fiscal well-being of local governments. Much like other performance-based initiatives, they are grounded on the fundamental assumption that they would improve organizational performance. However, past literature suggests that such promise is not always achieved, with some arguing that these efforts could even lead to dysfunctional outcomes. This study looks into how the introduction of a monitoring and benchmarking initiative affected the fiscal performance of local governments in the Philippines. Using an interrupted time-series design, it analyzes whether the changes in 14 benchmarked indicators at the provincial, city, and municipal levels are signs of improvement or isomorphism. The results show that, in aggregate, the evidence of improvement was more dominant across all three government levels. Specifically, the study finds that the intervention helped ease the local units' dependency on intergovernmental fiscal transfers. Although not as evident, considerable signs of convergence were also uncovered—a majority of which are indicative of negative isomorphism. The findings of this study seek to broaden the discussion on the impact of performance management regimes on local governments, particularly among developing countries.

**Keywords:** performance management, fiscal performance, benchmarking, isomorphism, local governments

The passage of the Local Government Code of 1991 (LGC) was seen as a breakthrough in the Philippines' long and arduous journey towards decentralization. At its birth, the law was envisioned to serve as a means of bringing progress to the countryside by giving localities the autonomy needed to develop at their own pace (Brillantes & Sonco, 2011). In theory, it is supposed to enable the government to better respond to the public by allowing local authorities to formulate policies that are best suited to their constituencies' needs. While anecdotal evidence claims that the passage of the law has contributed to the improvement of the country's overall state, numerous studies suggest that the promises of decentralization have been far from achieved (see Capuno, 2005; Ilago & Tumanut, 2007; Llanto, 2012).

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One of the biggest challenges often raised by critics is that institutional arrangements for service delivery have remained largely fragmented under the new system, with national agencies still playing a dominant role in discharging functions that should have been fully devolved to local authorities (Brillantes & Sonco, 2011). Furthermore, although there is an apparent mismatch between the revenue capacity and the cost of expenditures that local governments are expected to undertake, literature that looks into the fiscal performance of these subnational units continuously highlights their high and persistent reliance on intergovernmental transfers as a source of income (Diokno, 2012; Manasan, 2005, 2009; Llanto, 2012).

Today, a majority of local governments in the Philippines still depend on the internal revenue allotment (IRA) system, or the national tax allocation (NTA) system as it is now called, to support their functions and other development initiatives.<sup>1</sup> Previous studies have shown that, on average, the IRA accounts for more than half of the revenues of local governments—with some having a dependence rate as high as 98% (Cuaresma, 2019; Diokno-Sicat & Maddawin, 2018).

To resolve the problem, the central government has taken on various initiatives that seek to motivate local authorities to improve their fiscal performance—one of them is the adoption of monitoring and benchmarking programs. Scholars and practitioners around the world have utilized a wide range of financial ratios and indicators to assess the well-being of local governments in various fiscal areas (Gerrish & Spreen, 2017). In the case of the Philippines, local government units (LGUs) from the provincial to the municipal levels are evaluated each year using 20 financial monitoring indicators that are set against an income-based benchmark. LGUs are also able to compare their performance with their peers using an electronic portal, while reports are made available to the public through various government websites.

However, the impact of these initiatives on the actual performance of the assessed units has remained a largely unexplored area of public administration research. While local governments have continuously adopted similar kinds of initiatives, it remains unclear whether there have been appreciable improvements in terms of service delivery, poverty reduction, or, in this case, their financial well-being from the employment of such programs. Like many other performance-based initiatives in the country, monitoring and benchmarking programs continue to be implemented with little attention to their effectiveness in meeting their goal of improving government performance.

According to Rivenbark and Roenigk (2011), the main objective of these interventions is to allow evaluated units to identify the gaps in their performance and encourage them to make policy decisions that would ideally address those areas. In theory, the feedback derived from the monitoring and benchmarking process serves both as an aspiration (Cyert & March, 1963) and an alternative market signal (van Helden & Tillema, 2005) for public organizations to determine whether they are successful or not<sup>2</sup>. Failure to meet such aspiration would then trigger a solution-oriented response that would potentially result in favorable changes in the measured outcomes.

This study examines how the implementation of the New Local Government Financial Performance Monitoring System (New LGFPMS), which relies on monitoring and benchmarking as an improvement strategy, affected the fiscal performance of local governments in the Philippines. Specifically, it seeks to analyze whether the changes in the local governments' financial ratios resulting from the use of the said system are evidence of improvement or convergence.

This study seeks to provide three major contributions to the body of literature that explores the impact of performance management regimes on organizational outcomes. First, by borrowing from the behavioral and institutional schools, it is able to develop a more extensive theoretical explanation as to why improvement and isomorphism are likely to arise from the implementation of financial monitoring and benchmarking programs. But apart from building a stronger logical foundation for the two examined phenomena, such a move also aims to stimulate a productive discourse on the impacts of performance management regimes that are based on various knowledge areas.

Second, it introduces an analytical approach that does not automatically presume isomorphism as a negative outcome. Despite admitting that improvement and isomorphism are not necessarily rivalrous, previous studies have nominally presented the two as competing results—with the former being desirable and the latter being otherwise (e.g., Gerrish & Spreen, 2017; Pina et al., 2022). To deviate from such an approach, a strategy was formulated that allows the two outcomes to exist at the same time. Instead of seeing it as entirely unfavorable, isomorphism is categorized as either positive or negative—all depending on the desirability of its sustained impact.

Third, even though there have been several studies on this topic, most of them have relied on local governments in highly developed countries for data. Although not surprising, research on the impact of financial monitoring and benchmarking programs (and other performance management initiatives in general) from the perspective of developing countries like the Philippines has been largely limited. This study hopes to contribute to filling in such a gap by exploring whether similar findings would arise from local units with less social, political, and economic maturity compared to their more developed counterparts.

Before proceeding, it is important to note one semantic issue. Performance management is generally defined as the continuous and systematic process of evaluating a unit's performance, and utilizing the information derived from such process in various decision-making venues (Moynihan, 2008). Meanwhile, the term "performance management system" is used to refer to the actual tools or mechanisms used to assess and monitor the achievements (and failures) of the appraised units. Some scholars would argue that the latter is only one aspect of the performance management cycle—with other elements including the use of performance information in planning and decision-making, the conduct of leadership meetings, and the provision of rewards and punishments, to name a few. Given that the implementation of the New LGFPMS was accompanied by these other elements, it became difficult to isolate its effect both empirically and conceptually. As such, apart from using the two terms interchangeably, the performance management system was used to refer not just to the actual assessment and monitoring tools, but also to the other elements or activities that were carried out in support or as a result of it.

### **Literature Review**

#### **Performance Management in the Public Sector**

Since the introduction of New Public Management (NPM) during the early 1980s, numerous initiatives have been carried out with hopes of improving the efficiency and capacity of government organizations. The emergence of this “new” paradigm highlighted the inadequacies of traditional Weberian bureaucracies and encouraged the shift toward a more results-oriented approach (Gruening, 2001). This meant not only deviating from conventional rules or procedures-based systems but also adopting private sector practices that would provide governments with better ways of delivering services to their stakeholders (De Vries & Nemec, 2013).

Today, the legacy of NPM remains largely ingrained in a number of management reforms that seek to rationalize public organizations by reducing inefficiencies, imposing fiscal discipline, and prioritizing results. One notable example is performance management. For the past four decades, governments around the world have adopted this approach to respond to the public’s growing demand for better services as well as to assess the capacity of state institutions to provide them. Its proponents believe that by using performance information in various government activities, from financial planning and budgeting to engaging with key stakeholders, agencies would become more effective, efficient, and accountable (Kettl, 2005).

However, the adoption of performance-based reforms has not always been favored. Efforts to incorporate them in the different activities of government have been repeatedly criticized for their tendency to supplant democratic values with technocratic ones (Radin, 2006). Scholars like Loveday (2008) and Mintzberg (1994) have also argued that the obsession of these efforts with enforcing targets has led to a culture of conformity that has been detrimental to the performance of other organizational functions and the achievement of broad agency goals. They add that since failure to deliver often comes with career-limiting consequences, actors have become increasingly risk-averse. As a result, the innovative capacity of government agencies has been compromised, and instead of becoming leaders, agency heads have turned into public managers who coerce their subordinates into submission just to make sure that they meet their goals (Loveday, 2008).

But despite these challenges and criticisms, governments around the world have continued to gamble “the future of governance on the use of performance information” (Moynihan, 2008, p. 5). Pidd (2012) adds that while measuring performance might seem straightforward at first look, its application is far more complicated. Regardless, he emphasized that the need for it remains pretty much the same—for people to know how much progress has been made and for managers to determine where intervention is most needed.

#### **Performance Management in Philippine Local Governments**

While studies on performance management in the Philippines have largely focused on the agencies of the central government, local authorities have not been exempted from the large wave of performance-based reforms that came during the 1980s. Since then, numerous assessment tools and indicator systems have been implemented with the goal of effectively monitoring and evaluating the achievements of these subnational units.

According to von Einsiedel (2006), the information derived from these mechanisms is often used by local governments as inputs in various management functions, including the operational target setting of service departments as well as the yearly address of their local chief executive to the legislative council. Typically, these performance-based systems are also linked to poverty reduction and service delivery improvements. However, they have not been free from challenges. For one, although career authorities understand the value and importance of performance management systems, they claim that most of those that are being implemented do not exactly fit their needs or the political interests of their elected officials (von Einsiedel, 2006). Furthermore, many of these systems are also viewed as internal management tools, making their results not easily accessible to the public. Von Einsiedel (2006) suggested that there seems to be a belief among local officials that there is no need to disseminate performance information if improvements in poverty reduction and service delivery are being achieved. And in cases of poor performance, incumbents also tend to keep information more to themselves for fear that it could be used against them by their political rivals.

### **Measuring and Monitoring Fiscal Performance**

Numerous studies have highlighted the role of past financial crises in the increased effort to assess and monitor the fiscal performance of local governments (e.g., Hendrick, 2004; Kloha et al., 2005; Spreen & Cheek, 2016). From a proactive perspective, developed systems are used to detect initial signs of fiscal distress, allowing higher-level agencies, usually at the state or federal level, to take remedial action and avert any major crisis (De Widt et al., 2021). This view, which relies on these so-called early warning systems, hinges on the pessimistic assumption that local governments are likely to get into financial trouble without the supervision of higher-level authorities (Berman, 2003).

In the case of the Philippines, the desire to assess and monitor the fiscal performance of local governments could be traced back to the mid-1990s (Bureau of Local Government Finance [BLGF], 2015). As the central government was becoming increasingly overwhelmed by the number of funding requests for local infrastructure projects, the idea of mobilizing private capital to finance such initiatives began to flourish. However, despite efforts by the public sector to make the arrangement work, many private financial institutions remained reluctant to lend. Apart from their long tradition of conservative lending practices (United States Agency for International Development [USAID], 2009), the financial reports and statements of the LGUs were largely different from those of the private sector (BLGF, 2015), making it difficult to assess their overall fiscal condition and creditworthiness.

While the primary triggers for the adoption of fiscal monitoring initiatives vary, particularly among developed and developing countries, much of the debate in the literature focuses on what constitutes a “financially sound” or a “financially distressed” local government, including what are the best measures to gauge them. In the past, models have heavily relied on solvency indicators to assess fiscal health (De Widt et al., 2021). Although scholars and practitioners have provided varying definitions as to what solvency is, it is generally construed as the government’s capacity to meet its current and future obligations with its available revenue streams. Nollenberger and

his colleagues (2003) suggested that the indicator has four aspects: long-run, service-level, cash, and budgetary.

Over the years, academics have continued to experiment with various measures to evaluate the fiscal performance of local governments. However, studies that investigate the effectiveness of these measures, and the systems designed to monitor them, have raised concerns about their ability to accurately assess fiscal health. For example, Kloha et al. (2005) found that half of the indicator systems included in their study were likely to commit Type II errors<sup>3</sup> by categorizing financially distressed units as financially healthy. Maher and Deller (2011), on the other hand, discovered that there is only a weak correlation between the quantitative indicators and the qualitative assessment of public managers of the fiscal performance of their respective local governments.

More recently, researchers have also started to explore how the implementation of financial monitoring and benchmarking programs affects the fiscal performance of local governments. For instance, Gerrish and Spreen (2017) found that, while North Carolina's fiscal monitoring and benchmarking initiative has led to improvements in some indicators, the evidence of isomorphism was still more visible. Following the same approach, Pina and his co-authors (2022) uncovered similar findings, suggesting that fiscally distressed and fiscally healthy Spanish local governments tend to converge towards the mean over time.

### **Institutional Background on the New LGFPMS**

As mentioned, the desire to assess and monitor the fiscal performance of local governments in the Philippines was brought out by the need for infrastructure funding during the mid-1990s. To resolve the problem, the World Bank commissioned a study titled *A Statement of Income and Expenditures for Local Government Units*, which later became the foundation of the country's first local government financial reporting system (BLGF, 2015). The Local Government Financial Performance Monitoring System, more commonly known as LGFPMS I, was developed to cater to four primary objectives, namely:

- (a) assess the individual performance of local governments,
- (b) support their credit assessment,
- (c) provide them with continuous advice and support, and
- (d) assist in policy formulation.

The system measured the fiscal position of the evaluated units using 14 indicators, ranging from their revenue target accomplishment rate to their debt servicing ratio. LGUs were considered "financially weak" if they fail in at least a third of the used indicators and if a cash deficit in their regular operations has been incurred (BLGF, 2015).

Since LGFPMS I was formally introduced in the mid-2000s, it has faced numerous criticisms even during the early stages of its implementation. For instance, in a preliminary review of the system, it was pointed out that there was a need for an analytical framework to be established to better understand how the financial performance reports relate to the different capacity, productivity, and development indicators (BLGF, 2015). But apart from the need for an additional framework, the



BLGF also expressed its concern that the 14 indicators may not be sufficient to comprehensively assess the local governments' financial condition. While it remains unclear as to what extent the initial system has been successful, the New LGFPMS was crafted primarily to address such inadequacies and failures. As Gerrish (2016) pointed out, second-generation performance management systems like the New LGFPMS are typically created in response to perceived or actual failures. They are often characterized by major changes in the structure of the initial system, such as changing how certain measures are defined or by including additional indicators.

Under the New LGFPMS, LGUs are evaluated using 20 indicators, 12 of which were newly introduced (see Table 1). But apart from the indicators, what makes the new system unique is that it utilizes benchmarks that are based on the unit's income classification. Benchmarks are calculated using the financial data of members within that group in an effort to make the assessments more "fair and meaningful." Once the LGUs have been evaluated, they are then categorized into four types: local governments with

- (a) good revenue and good expenditure,
- (b) good revenue and poor expenditure,
- (c) poor revenue and good expenditure, or
- (d) poor revenue and poor expenditure.

In sum, a unit must pass at least nine out of the 20 established benchmarks, with four indicators as "musts," to obtain a good revenue and good expenditure rating.

**Table 1**  
*Comparison of Financial Indicators Used in LGFPMS I and New LGFPMS*

Indicator	LGFPMS I	New LGFPMS
Revenue Indicators		
• Revenue Level		√
• Revenue Growth+		√
• Per Capita Locally Sourced Revenue and Special Education Fund (SEF)		√
• Per Capita Growth in Locally Sourced Revenue		√
• Percent of Locally Sourced Revenue to Total Revenue <sup>+</sup>		√
• Percent of Annual Regular Income to Total Revenue		√
• Ratio of Total Revenue Office Operations Cost to Total Revenues Collected	√	√
• Real Property Tax Accomplishment Rate	√	√
• Revenue Target Accomplishment Rate	√	
• Revenue Per Capita	√	
Expenditure Indicators		
• Per Capita Total Expenditures / Expenditures Per Capita <sup>+</sup>	√	√
• Personal Services Expenditure Ratio Codal		√

• Total Personal Services Expenditure Ratio	√	√
• Total Debt Service Expenditure Ratio		√
• Social Services Expenditure Ratio <sup>+</sup>	√	√
• Economic Services Expenditure Ratio <sup>+</sup>	√	√
• Expenditure Rate	√	
• Internal Financing Ratio	√	
Debt and Investment Capacity Indicators		
• Debt Service Ratio	√	√
• Gross Operating Surplus to Debt Service Ratio		√
• Debt to Net Asset Ratio		√
• Capital Investment Expenditures to Total Revenue Ratio		√
• Net Operating Surplus to Total Revenue Ratio		√
Financial Management Capacity Indicators		
• Uncommitted Cash Balance to Total Expenditure Ratio		√
• Cash Target Accomplishment Rate	√	
• Savings/Dissaving Rate	√	
• Enterprises Profitability Rate	√	

*Note.* <sup>+</sup> Required indicators that local governments have to pass in order to obtain a good revenue or good expenditure rating under the New LGFPMS. For the expenditure category, local governments must only pass one of the two marked expenditure ratios (either social or economic) along with total expenditures per capita.

*Source.* BLGF, 2015.

## Hypotheses

The objective of this study is to examine how the implementation of the New LGFPMS, a national government-led program that relies on monitoring and benchmarking as an improvement strategy, affected the fiscal performance of local governments in the Philippines. In particular, it seeks to investigate whether the changes in the units' financial ratios are evidence of improvement or convergence. However, unlike previous studies, this one employs an analytical approach that treats the two hypothesized effects as mutually inclusive rather than competing. By doing so, isomorphism is presented as it is—a relative result and not merely an unfavorable outcome.

### Improvement Hypothesis

The study's first hypothesis is largely grounded on the works of Ammons, Roenigk, and Rivenbark (see Ammons & Rivenbark, 2008; Ammons & Roenigk, 2015; Rivenbark & Roenigk, 2011). They generally argue, in consonance with a larger body of literature on performance information use, that monitoring and benchmarking initiatives enable assessed units to identify gaps in their performance and motivate them to make policy decisions that would potentially address those areas. Tillema (2007) highlighted that benchmarking also “provides organizations with information about their relative performance that would otherwise be unavailable due to the



absence of market signals” (p. 500). She added that the feedback derived from its use acts as an alternative measure for government agencies to determine whether they are successful in certain areas or not.

Spreen and Cheek (2016) suggested that there are two primary means by which monitoring and benchmarking initiatives could improve fiscal performance. First, they allow higher-level agencies to detect local governments that are likely to experience fiscal distress, and if endowed with the proper statutory authority, these agencies could require decision-makers to take corrective actions or even directly intervene to resolve the problem at hand. Second, they also provide public managers and elected officials with vital performance information that could be used as inputs or motivation to better their measured outcomes.

Meanwhile, Cyert and March’s (1963) concept of social and historical aspiration provides another perspective as to how feedback derived from such intervention could shape an organization’s behavior and, consequently, its future performance. Based on their theory, if evaluated units fail to meet their desired level of aspiration, which in this case is represented by the benchmarks (social aspiration) and their previous financial ratios (historical aspiration), they become more eager to find solutions that would ideally level up their performance. Studies by Flink (2018), Holm (2017), and Olsen (2017) have provided empirical evidence to support this assertion. Hong (2019) added that in cases like the New LGFPMS where information on the performance of the social comparison group is available, social aspiration becomes more salient and relevant for the assessed organizations.

Nevertheless, many, if not all, of these arguments lie on the fundamental assumption that the feedback derived from such interventions will be used by actors in various decision-making venues. Past literature, at least in the United States, suggests that this is indeed the case. For example, Rivenbark and Roenigk (2011) found that public managers and elected officials who belong to local governments that utilize financial monitoring systems were more informed about their locality’s fiscal position compared to their non-utilizing counterparts. More importantly, they also discovered that these officials used the generated benchmarking data in making policy decisions for their respective constituencies. Furthermore, Gerrish (2016), in his meta-analysis, showed that the use of performance management systems had a small but positive effect on the productivity of public organizations, with a much larger impact observed in cases where benchmarking was utilized. Overall, these insights support the proposition that monitoring and benchmarking programs could potentially improve fiscal performance.

### **Isomorphism Hypothesis**

Some scholars, however, have cautioned that monitoring and benchmarking interventions might not be sufficient to generate beneficial changes in performance, particularly in measured financial outcomes. Gerrish and Spreen (2017) argued that there are two reasons why this finding might arise: (a) the intervention simply has no effect on fiscal performance, and (b) the changes in the units’ financial ratios counterbalance one another, resulting to a roughly similar average or a null impact.

Grounded on the work of DiMaggio and Powell (1983), the second hypothesis of this study dwells on the concept of institutional isomorphism. This view suggests that units of a population that operate under similar conditions tend to become increasingly

homogenous over time. Essentially, what happens is that actors look for and subscribe to certain rules of behavior, not necessarily to improve internal efficiency, but rather to gain legitimacy or, in some cases, obtain resources to guarantee their survival (DiMaggio & Powell, 1991; Lowndes & Wilson, 2003; Zucker, 1987). DiMaggio and Powell (1983) identified three types of isomorphic pressures that push organizations to behave in such a way: coercive, mimetic, and normative.

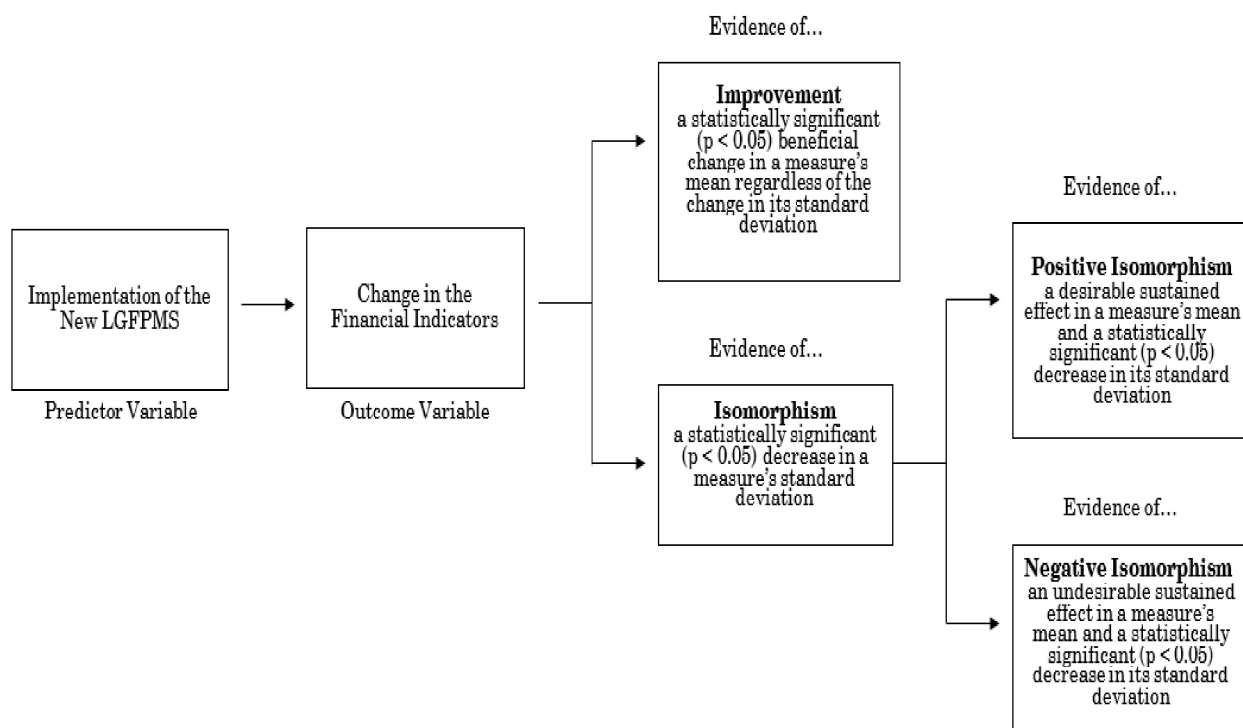
Previous studies have provided evidence of isomorphic behavior in various government institutions (see e.g., Ashworth et al., 2009; Teodoro, 2014; Villadsen, 2011). In particular, Frumkin and Galaskiewicz (2004) discovered that public organizations tend to be more susceptible to all three types of isomorphic pressures compared to their for-profit and non-profit counterparts. While quantitative studies on fiscal performance often present isomorphism as a negative outcome, recent works suggest that isomorphism has also contributed to disseminating desirable practices in the public sector, including the fulfillment of document requests (ben-Aaron et al., 2017) and adherence to federal environmental regulations (Teodoro, 2014). In the case of public record requests, ben-Aaron et al. (2017) argued that knowledge of peer compliance sparks “competitive pressures” among government agencies, prompting them to overcome legal ambiguities and comply with these requests. Nevertheless, Lægveid and his colleagues (2007) cautioned that it is likely that these positive outcomes are caused more by their search for legitimacy rather than by their eagerness to improve their performance.

### **Methods and Data**

This study utilizes the financial records of Philippine local governments from 2012 to 2019 to examine whether the implementation of a financial monitoring and benchmarking initiative had any significant effect on the fiscal performance of the assessed units. To test the two hypotheses, it looked into the changes in the local governments’ financial ratios before and after the New LGFPMS was introduced. Specifically, it examined the difference in the indicators’ means and standard deviations to identify signs of improvement and convergence. As a heuristic, improvement is defined as a statistically significant ( $p < 0.05$ ) beneficial change in an indicator’s mean regardless of the change in its standard deviation. Here, the words “favorable” and “beneficial” were used instead of “increase” since there are instances where a decline in a certain measure is considered more ideal (e.g., IRA dependency).

Meanwhile, isomorphism is defined as a statistically significant ( $p < 0.05$ ) decrease in a measure’s standard deviation. As mentioned, despite admitting that improvement and isomorphism are not necessarily mutually exclusive, previous studies have nominally presented the two as competing results, with the latter being depicted as the undesirable outcome. To deviate from such an approach, a framework was formulated that enables the two outcomes to exist at the same time. Instead of seeing isomorphism as entirely unfavorable, it is categorized as either positive or negative depending on the desirability of its sustained impact. An illustration of the study’s analytical approach is provided in Figure 1.

**Figure 1**  
*Analytical Framework of the Study*



### Population

This research focuses on three types of local governments in the Philippines, specifically the provincial, municipal, and city levels. According to the Department of the Interior and Local Government (2020), there are 81 provinces, 146 cities, and 1,488 municipalities in the country as of September 2020. However, to ensure the uniformity and comparability of the fiscal data of these subnational units, two exclusion criteria were imposed. First, local governments that have been converted or reclassified at any given point during the study period were intentionally removed from the analyses. Since reclassification often comes with drastic increases in revenue shares, particularly in the internal revenue allotment system, they were disregarded to avoid skewing the results. Second, to keep the data as balanced as possible, local governments with missing or partial financial reports for at least one fiscal year (FY) were also omitted. After the two exclusion criteria were enforced, two provinces (2.47%), 14 cities (9.59%), and 156 municipalities (10.48%) were removed, leaving a baseline sample of 79 provinces, 132 cities, and 1,332 municipalities. But apart from this elimination procedure, an outlier correction was also performed, the details of which are discussed in the latter sections of this paper.

### **Design and Data Sources**

This study uses a panel-interrupted time-series design to examine how the implementation of the New LGFPMS affected the fiscal performance of local governments in the Philippines. Although the program was introduced in June 2015, FYs 2012 to 2015 and FYs 2016 to 2019 were designated as the pre- and post-implementation periods since the intervention was anticipated to have a delayed effect. Given the fact that most government programs and activities were already set during the preceding year, this left agencies with very little opportunity to incorporate the feedback generated, which in this case is the retroactively published data for FYs 2013 and 2014, into their plans and strategies for 2015. Likewise, data from 2020 onwards were intentionally excluded from the study since there had been a sudden and massive change in the local governments' fiscal priorities during the said period due to the coronavirus pandemic.

### **Empirical Strategy**

As shown in the analytical framework, the implementation of the new fiscal monitoring and benchmarking initiative was used as the predictor variable while the 14 financial ratios were used as outcome variables. The New LGFPMS was represented by a dummy variable, with "1" covering the years it was put into effect and "0" for the years prior. To account for the differences in the social and economic characteristics of the evaluated units, several control variables were also employed. Specifically, the study accounted for the population, poverty incidence, unemployment rate, and annual median income of each LGU. In cases where data at the provincial, city, or municipal level were unavailable, regional estimates were used as proxies. The actual values of all variables were utilized except for the population which was log-transformed.

Following Gerrish and Spreen (2017), the two hypotheses were tested by looking into the changes in the measures of central tendency and dispersion of the 14 outcome variables. For the improvement hypothesis, fixed effects regression analysis with standard errors was used to determine whether the changes in the financial ratios' before and after means were statistically different from zero. The developed model was then utilized to calculate the residuals of the pre- and post-implementation periods, which became the foundation of subsequent analyses. A number of visual and statistical tests were also conducted to determine the appropriateness of the chosen approach and to check the model for potential problems such as heteroskedasticity and autocorrelation.<sup>4</sup> Moreover, an ANOVA-variant, Bartlett's test, was used to confirm the isomorphism hypothesis. This procedure examined whether there was an actual difference in the dispersion of the financial ratios before and after the intervention was introduced. By using the residuals from the developed model, the observations were freed of various contaminating forces, including the changes in population and unemployment rate. To test the second hypothesis further, an analysis that investigates the difference between the interquartile ranges of the pre- and post-intervention periods was also performed.

### Interrupted Time-Series Model

The regression-based interrupted time-series model estimates the effect of the New LGFPMS on the fiscal performance of the local governments. In mathematical terms, the impact of the intervention is calculated using the following equation:

$$Y_{it} = \beta_0 + \beta_1 T_{1,it} + \beta_2 I_{2,it} + \beta_3 S_{3,it} + \beta_4 C_{4,it} + \beta_5 F_i + e_{it} \quad (1)$$

where  $Y_{it}$  is the outcome variable at a given point in time  $t$  in local government  $i$ ,  $T_{1,it}$  is the time since the start of the observation period,  $I_{2,it}$  is a dummy variable indicating the intervention, and  $S_{3,it}$  is the time since the intervention was implemented. The model also has a set of control variables  $C_{4,it}$ , a fixed effect term  $\beta_5 F_i$ , and an error term  $e_{it}$ . In this case where a control group is unavailable,  $\beta_0$  represents the intercept or the baseline level of the outcome variable,  $\beta_1$  is the slope of the line before the intervention,  $\beta_2$  is the immediate effect or the change in the outcome level that occurs immediately after the intervention was introduced, and  $\beta_3$  is the sustained effect or the difference between the pre- and post-intervention slopes. Significant  $p$ -values in  $\beta_2$  and  $\beta_3$  indicate that the program has had an immediate and sustained impact on the outcome variables.

### Data Sources

Data needed to accomplish the objective of this study were obtained from the BLGF's website. The LGUs' statement of receipts and expenditures (SRE) were used to come up with the different financial ratios, with the Department of Finance's *Local Public Financial Management Tools Manual* as a guide in determining the composition and formula for each indicator. Although the BLGF previously published the actual financial ratios of the assessed units, it was only for FYs 2013 to 2015. To complete the dataset, the ratios had to be manually computed using the SRE of each local government. The accuracy of the formulas used was validated by including FYs 2013 to 2015 in the computation and comparing the values generated with those published by the implementing agency.

In cases when the data needed to come up with the financial ratio was not in the SRE and nor was publicly available (e.g., the real property tax accomplishment rate that still requires the quarterly report on the real property assessment of each local government), such ratios were intentionally omitted. This is the reason why only 13 out of the 20 financial indicators were included in the analyses. Also, being identified as one of the commonly examined indicators of fiscal health among local governments in the Philippines, IRA dependency has been added as the 14th dependent variable. A summary of all the financial indicators used in this study, including their description, computation, and benchmarks, is provided in Table 2.

**Table 2**  
*List of Financial Indicators Used in the Study*

Financial Indicators and Desired Inter-Period Change	Definition	Calculation	Benchmark	Concern Addressed
<b>Revenue Indicators</b>				
Revenue Growth	(+) Revenue growth or the trend in revenue across time	$\frac{\text{Total Revenues}_{Y_1} - \text{Total Revenues}_{Y_0}}{\text{Total Revenues}_{Y_0}} \times 100$	Must be $\geq$ the annual inflation rate plus annual population growth rate	Used as evidence of the sustainability of an appropriate revenue level
Per Capita Locally Sourced Revenue + SEF	(+) Per Capita Locally Sourced Revenue + SEF	$\frac{\text{Locally Sourced Revenue} + \text{SEF}}{\text{Population}} \times 100$	Must be $\geq$ the average of the income class to which the local government belongs to	Used as evidence of the degree of tax effort exerted by a local government
Per Capita Growth in Locally Sourced Revenue	(+) Per Capita Growth in Locally Sourced Revenue	$\frac{\text{Per Capita LSR}_{Y_1} - \text{Per Capita LSR}_{Y_0}}{\text{Per Capita LSR}_{Y_0}} \times 100$	Must be $\geq$ the average of the income class to which the local government belongs to	Used as evidence of the degree of improvement in the tax effort exerted by a local government
Percent of Locally Sourced Revenue to Total Revenue	(+) Percent of Locally Sourced Revenue to Total Revenue	$\frac{\text{Locally Sourced Revenue}}{\text{Total Revenues}} \times 100$	Must be $\geq$ the average of the income class to which the local government belongs to	Used as evidence of the reliability of an appropriate revenue level
Percent of Annual Regular Income to Total Revenue	(+) Percent of Annual Regular Income to Total Revenue	$\frac{\text{Annual Regular Income}}{\text{Total Revenues}} \times 100$	Must be $\geq$ the average of the income class to which the local government belongs to	Used as evidence of the predictability of an appropriate revenue level
<b>Expenditure Indicators</b>				
Total Expenditures per Capita	(+) Average amount spent by the local government per constituent	$\frac{\text{Total Expenditures}}{\text{Population}} \times 100$	Must be $\geq$ the average of the income class to which the local government belongs to	Indicative of the amount of services given by a local government to its constituents on a per capita basis



Total Debt Service Expenditure Ratio	(-)	Ratio of the local government's debt service expenditures to total expenditures	Total Debt Service Expenditures Total Expenditures	x100	Must be $\leq$ the average of the income class to which the local government belongs to and should be decreasing	Regarded as one of the most rigid expenditure categories for local governments
Social Services Expenditure Ratio	(+)	Ratio of the local government's social services expenditures to total expenditures	Social Services Expenditures Total Expenditures	x100	Must be $\geq$ the average of the income class to which the local government belongs to	Level of social services expenditures is highly correlated with poverty alleviation and improvement in the HDI
Economic Services Expenditure Ratio	(+)	Ratio of the local government's economic services expenditures to total expenditures	Economic Services Expenditures Total Expenditures	x100	Must be $\geq$ the average of the income class to which the local government belongs to	Level of economic services expenditures is also highly correlated with poverty alleviation and improvement in the HDI
Debt and Investment Capacity Indicators						
Debt Service Ratio	(-)	Ratio of the local government's expenditures for debt service to total annual regular income	Debt Service Payments (GF) Annual Regular Income	x100	Must be $\leq 20\%$ of annual regular income and should be at least stable if not decreasing across time	Defines the extent to which a local government could engage in additional debt, taking into account the legal limits
Capital Investment Expenditures to Total Revenue Ratio	(+)	Percent share of capital investment to total revenue	Capital Investment Expenditures Total Revenues	x100	Must be $\geq$ the average of the income class to which the local government belongs to	Measures the extent to which a local governments consider the importance of capital expenditures
Net Operating Surplus to Total Revenue Ratio	(+)	Ratio of the local government's net operating surplus to total revenue	Net Operating Surplus (Deficit) Total Revenues	x100	Must be $\geq$ the average of the income class to which the local government belongs to	Shows the ability of local governments to ensure that their budget will be balanced

Financial Management Capacity Indicators		
Uncommitted Cash Balance to Total Expenditure Ratio	$\frac{\text{Uncommitted Cash Balance}}{\text{Total Expenditures}} \times 100$	Shows the ability of local governments to ensure that their budget will be balanced even in the face of financial uncertainties
Other Indicators		
Internal Revenue Allotment Dependency	$\frac{\text{Internal Revenue Allotment}}{\text{Annual Regular Income}} \times 100$	Measures the local government's reliance on the national government or the internal revenue allotment system for its revenue

Notes: SEF = Special Education Fund, LSR = Locally Sourced Revenue, HDI = Human Development Index, GF = General Fund, LGAS = Local Government Accounting System.  
Source: BLGF, 2015.

### Outlier Correction

Upon completing the dataset needed for the study, it was noticeable that there were local governments that had observations way above the group mean. For instance, from 2011 to 2019, Makati City registered a per capita locally sourced revenue average of PHP20,622.27, which is far from the city average of PHP2,040.16. Since these observations could significantly alter the results of the analyses, an outlier correction procedure was also performed. A panel version of the Thompson Tau's Technique was used to trim outliers from the three samples (see Wheeler & Ganji, 1996). Here, the panel average for each indicator is calculated, and local governments whose panel average falls four standard deviations above or below the mean were removed from the study. Like the original technique, only one observation is removed at a time. This process is repeated until all panel observations are within the set parameter. Table 3 provides a comparison of the summary statistics of the outcome variables before and after the outlier correction procedure was performed.

## Results

### Descriptive Statistics

Tables 3 and 4 contain the summary statistics for the 14 financial indicators and the four covariates included in the developed time-series model. Table 3 shows that there was a significant change in some of the financial ratios' means and standard deviations after the outlier correction procedure was performed. For example, after removing 3.38% of the baseline observations for the municipalities' expenditures per capita, the group average declined from PHP3,559.92 to PHP2,988.44, resulting in a 16.05% difference. The change, however, was much more visible in the standard deviation which dropped from PHP7,624.98 to PHP1,343.28 or 82.38%.

### Baseline Results

The baseline results of the analyses are provided in Tables 5 and 6. Table 5 summarizes the changes in the financial indicators' means while Table 6 covers the changes in their standard deviations before and after the New LGFPMS was employed. To compute for the percent change in the means, the regression coefficient of  $\beta_2$  (for the immediate effect) and  $\beta_3$  (for the sustained effect) was divided by the mean of the pre-intervention period and multiplied by 100. For the standard deviations, percent change is calculated by subtracting the post-intervention SD from the pre-intervention SD and dividing the difference by the pre-intervention SD. The quotient is also then multiplied by 100 to convert the figure to percent form.

**Table 3**  
*Summary Statistics of Financial Indicators, 2012-2019*

Financial Indicators and Desired Inter-Period Change	Provincial Governments						City Governments						Municipal Governments					
	Without Outlier Correction			With Outlier Correction			Without Outlier Correction			With Outlier Correction			Without Outlier Correction			With Outlier Correction		
	Obs	Mean	SD	Obs	Mean	SD	Obs	Mean	SD	Obs	Mean	SD	Obs	Mean	SD	Obs	Mean	SD
1 (+)	632	10.99	40.57	632	8.91	11.12	1,056	10.57	20.88	0.00%	10.57	20.88	10,656	12.61	70.71	6.01%	9.74	10.63
2 (+)	632	312.49	257.69	632	300.57	230.20	1,056	2,040.16	2,588.30	4.55%	1,586.42	1,223.11	10,656	441.04	634.19	2.63%	372.25	331.07
3 (+)	632	17.94	65.55	632	15.44	43.45	1,056	10.06	29.80	3.03%	9.00	13.61	10,656	16.28	126.37	3.98%	12.12	29.31
4 (+)	632	14.85	9.97	632	14.85	9.97	1,056	33.04	21.69	0.00%	33.04	21.69	10,656	12.81	11.62	0.98%	12.31	10.45
5 (+)	632	97.13	5.23	632	97.35	4.75	1,056	98.09	3.88	0.76%	98.25	2.92	10,656	97.97	4.60	3.08%	98.30	3.51
6 (+)	632	1,947.38	1,753.50	632	1,785.92	991.16	1,056	4,691.13	2,229.90	2.27%	4,466.76	1,610.36	10,656	3,559.92	7,624.98	3.83%	2,988.44	1,343.28
7 (-)	632	4.20	4.36	632	4.20	4.36	1,056	4.87	4.45	0.00%	4.87	4.45	10,656	2.62	3.79	0.45%	2.57	3.68
8 (+)	632	23.64	11.34	632	23.64	11.34	1,056	18.45	9.88	0.00%	18.45	9.88	10,656	15.54	6.47	0.90%	15.33	6.04
9 (+)	632	18.45	11.05	632	18.45	11.05	1,056	15.13	7.90	0.00%	15.13	7.90	10,656	13.39	7.90	1.08%	13.37	7.85
10 (-)	632	3.78	4.14	632	3.78	4.14	1,056	4.36	4.19	0.00%	4.36	4.19	10,656	2.50	3.96	0.60%	2.42	3.61
11 (+)	632	10.05	8.36	632	10.05	8.36	1,056	11.55	9.73	0.76%	11.3	9.33	10,656	8.81	11.28	0.90%	8.49	10.14
12 (+)	632	31.91	14.18	632	31.91	14.18	1,056	32.93	14.38	0.00%	32.93	14.38	10,656	23.55	17.33	0.15%	23.66	15.18
13 (+)	632	72.07	59.70	632	72.07	59.70	1,056	75.38	74.52	1.52%	71.56	66.77	10,656	52.27	66.14	1.88%	48.47	49.47
14 (-)	632	82.78	12.14	632	82.78	12.14	1,056	64.85	23.02	0.00%	64.85	23.02	10,656	84.45	14.83	0.68%	84.87	14.00
1 Revenue Growth																		
2 Per Capita Locally Sourced Revenue + SEF																		
3 Per Capita Growth in Locally Sourced Revenue																		
4 Percent of Locally Sourced Revenue to Total Revenue																		
5 Percent of Annual Regular Income to Total Revenue																		
6 Total Expenditures per Capita																		
7 Total Debt Service Expenditure Ratio																		
8 Social Services Expenditure Ratio																		
9 Economic Services Expenditure Ratio																		
10 Debt Service Ratio																		
11 Capital Investment Expenditures to Total Revenue Ratio																		
12 Net Operating Surplus to Total Revenue Ratio																		
13 Uncommitted Cash Balance to Total Expenditure Ratio																		
14 Internal Revenue Allotment Dependency																		

*Notes.* Data used in this study were obtained from 79 provinces, 132 cities, and 1,332 municipalities. For the complete details of the performed outlier correction procedure, see Methods and Data. OT or outliers trimmed refers to the percentage of observations that were identified as outliers and were removed from the sample.

**Table 4**  
*Summary Statistics of Control Variables, 2012-2019*

Variables	Provincial Governments			City Governments			Municipal Governments		
	Obs	Mean	Sd	Obs	Mean	Sd	Obs	Mean	Sd
Poverty Incidence	632	23.83	14.54	1,056	18.09	10.49	10,656	23.72	14.74
Unemployment Rate	632	4.78	1.52	1,056	5.46	1.81	10,656	4.94	1.57
Annual Media Income	632	228,674	54,256	1,056	258,471	74,871	10,656	229,634	54,330
ln(Population)	632	13.40	0.97	1,056	12.10	0.80	10,656	10.35	0.77

*Notes.* The reported statistics represent the eight-year average and standard deviation of each variable. Due to the unavailability of unemployment and income data at the provincial, city, and municipal levels, regional estimates were used as proxies.

As shown in the analytical framework, any statistically significant beneficial change in an indicator's mean was considered as evidence of improvement. However, for a result to be deemed as beneficial, it must follow the same trend or direction as the one indicated in the desired inter-period change column. On the other hand, any statistically significant decline in an indicator's standard deviation is considered a sign of isomorphism. Once identified, the result is then categorized as either positive (PI) or negative (NI), all depending on the desirability of its sustained impact.

In aggregate, the results of the analyses provide more evidence to support the improvement hypothesis. Among the provincial governments, five out of the 14 financial ratios exhibited improvement, four of which were immediate while one was sustained. In contrast, only one indicator showed signs of isomorphism. The results also indicate that while the New LGFPMS was able to trigger desirable changes right after it was implemented, such changes, however, were not sustained. I argue that this outcome is a manifestation of the local governments' tendency to engage in instant gratification behavior, whereby they improve their financial ratios immediately after a benchmarking program is introduced, usually to give a desirable initial impression, but then return to their usual spending priorities during the years that follow. Given the fact that provincial governments are responsible for performing long-term, routinary, and oftentimes spending-heavy functions—such as providing agricultural support, operating and maintaining public hospitals, and building roads, classrooms, and other infrastructure, to name a few—this gave them less flexibility to make continued adjustments on their expenditures, especially since they are also faced with numerous challenges in terms of revenue generation. As a result, there were not much sustained changes in their fiscal performance despite the intervention.

When it comes to the city governments, the implementation of the New LGFPMS has led to improvements in seven indicators, two of which were immediate while five were sustained. In this case, the evidence of isomorphism also became more prominent, showing up in four of the 14 financial ratios. Out of these four, three were indicative of negative isomorphism and one of positive isomorphism. For the municipal governments, three out of the four outcomes of interest—the beneficial immediate effect, the beneficial sustained effect, and the negative isomorphism—were each found in five indicators.

**Table 5**  
*Percent Change in the Financial Indicators' Means (Baseline Results)*

Financial Indicators and Desired Inter-Period Change	Provincial Governments				City Governments				Municipal Governments			
	Immediate Effect	Evidence of Improvement?	Sustained Effect	Evidence of Improvement?	Immediate Effect	Evidence of Improvement?	Sustained Effect	Evidence of Improvement?	Immediate Effect	Evidence of Improvement?	Sustained Effect	Evidence of Improvement?
<b>Revenue Indicators</b>												
Revenue Growth	(+)	-31.11	No	-90.82***	No	-35.87	No	-7.57	No	-50.73	-57.85***	No
Per Capita Locally Sourced Revenue + SEF	(+)	13.27*	Yes	-6.71	No	-10.07**	No	12.51***	Yes	-4.84*	6.31***	Yes
Per Capita Growth in Locally Sourced Revenue	(+)	-14.93	No	-28.42	No	21.04	No	2.18	No	22.74	-10.81	No
Percent of Locally Sourced Revenue to Total Revenue	(+)	5.97	No	-4.57*	No	-2.78	No	3.36***	Yes	-3.57**	3.84***	Yes
Percent of Annual Regular Income to Total Revenue	(+)	-0.51	No	-1.54***	No	0.05	No	-0.59**	No	-0.52***	-0.22**	No
<b>Expenditure Indicators</b>												
Total Expenditures per Capita	(+)	-0.93	No	5.48*	Yes	-7.21**	No	11.71***	Yes	-0.18	5.98***	Yes
Total Debt Service Expenditure Ratio	(-)	-20.30	No	0.41	No	-0.78	No	-2.99	No	-17.48***	3.33	No
Social Services Expenditure Ratio	(+)	0.84	No	0.75	No	-2.74	No	0.74	No	-3.85***	-0.92	No
Economic Services Expenditure Ratio	(+)	1.34	No	2.05	No	-5.40	No	0.83	No	-2.29	-0.15	No
<b>Debt and Investment Capacity Indicators</b>												
Debt Service Ratio	(-)	-26.60*	Yes	6.79	No	-3.62	No	5.38	No	-18.95***	7.56***	No
Capital Investment Expenditures to Total Revenue Ratio	(+)	-14.84	No	-0.22	No	-0.16	No	11.55**	Yes	0.52	10.69***	Yes
Net Operating Surplus to Total Revenue Ratio	(+)	9.12	No	-13.46***	No	11.62**	Yes	-20.88***	No	18.11***	-21.72***	No
<b>Financial Management Capacity Indicators</b>												
Uncommitted Cash Balance to Total Expenditure Ratio	(+)	33.27**	Yes	-3.02	No	41.25***	Yes	-15.86**	No	40.54***	-11.30***	No
<b>Other Indicators</b>												
Internal Revenue Allotment Dependency	(-)	-2.82*	Yes	0.13	No	1.21	No	-1.90**	Yes	-1.33***	-0.68***	Yes

*Notes.* The percent change in mean is computed by dividing the regression coefficient of  $\beta_2$  (for the immediate effect) and of  $\beta_3$  (for the sustained effect) with the mean of the pre-intervention period and multiplying the quotient by 100. In this study, performance improvement is defined as a statistically significant ( $p < 0.05$ ) beneficial change in the mean regardless of the change in the standard deviation.

The statistical significance of the ratios' corresponding regression coefficients are denoted as follows: \*  $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .



**Table 6**  
*Percent Change in the Financial Indicators' Standard Deviations and Interquartile Ranges (Baseline Results)*

Financial Indicators and Desired Inter-Period Change	Provincial Governments				City Governments				Municipal Governments			
	Change in SD	Evidence of Isomorphism?	Change in IQR	Evidence of Isomorphism?	Change in SD	Evidence of Isomorphism?	Change in IQR	Evidence of Isomorphism?	Change in SD	Evidence of Isomorphism?	Change in IQR	Evidence of Isomorphism?
<b>Revenue Indicators</b>												
Revenue Growth	(+)	0.85	9.67	No	-19.39***	Yes (NI)	-15.69	Yes	9.73***	No	-4.39	Yes
Per Capita Locally Sourced Revenue + SEF	(+)	-0.07	-0.25	Yes	10.94*	No	10.72	No	38.18***	No	35.73	No
Per Capita Growth in Locally Sourced Revenue	(+)	-3.18	0.80	No	-6.40	No	-3.63	Yes	-1.96	No	-8.55	Yes
Percent of Locally Sourced Revenue to Total Revenue	(+)	3.12	0.27	No	0.41	No	4.47	No	2.05	No	3.70	No
Percent of Annual Regular Income to Total Revenue	(+)	0.26	4.91	No	-27.39***	Yes (NI)	-28.98	Yes	-6.00***	Yes (NI)	-32.55	Yes
<b>Expenditure Indicators</b>												
Total Expenditures per Capita	(+)	-8.99	-7.43	Yes	-1.77	No	-2.01	Yes	3.27*	No	-1.36	Yes
Total Debt Service Expenditure Ratio	(-)	-8.82	-18.50	Yes	-16.90***	Yes (PI)	-18.03	Yes	-15.09***	Yes (NI)	-16.22	Yes
Social Services Expenditure Ratio	(+)	3.25	2.46	No	5.63	No	13.33	No	-4.11**	Yes (NI)	0.73	No
Economic Services Expenditure Ratio	(+)	-0.77	3.86	No	-5.02	No	2.34	No	-2.17	No	-14.29	Yes
<b>Debt and Investment Capacity Indicators</b>												
Debt Service Ratio	(-)	-22.77***	-27.04	Yes	-25.77***	Yes (NI)	-24.35	Yes	-11.13***	Yes (NI)	-18.66	Yes
Capital Investment Expenditures to Total Revenue Ratio	(+)	-3.32	2.87	No	0.19	No	3.12	No	15.81***	No	25.71	No
Net Operating Surplus to Total Revenue Ratio	(+)	3.05	0.34	No	-1.75	No	-1.88	Yes	15.58***	No	6.84	No
<b>Financial Management Capacity Indicators</b>												
Uncommitted Cash Balance to Total Expenditure Ratio	(+)	85.01***	41.94	No	2.50	No	24.50	No	22.81***	No	14.72	No
<b>Other Indicators</b>												
Internal Revenue Allotment Dependency	(-)	2.42	1.36	No	-0.77	No	2.15	No	14.00***	No	0.56	No

*Notes.* The percent change in standard deviation and interquartile range are computed as follows: (Post-Intervention SD or IQR – Pre-Intervention SD or IQR) / Pre-Intervention SD or IQR \* 100. The residuals from the developed model were used for both analyses. As a heuristic, PI or positive isomorphism is defined as a statistically significant (p < 0.05) decline in the standard deviation and a beneficial sustained effect in the mean. Meanwhile, NI or negative isomorphism is defined as a statistically significant (p < 0.05) decline in the standard deviation and an undesirable sustained effect in the mean. Finally, similar with previous studies, the percent change in the IQR were not tested for statistical significance.

The statistical significance of the changes in the standard deviations are denoted as follows: \*p < .05, \*\*p < .01, \*\*\*p < .001.

Table 5 shows that, similar to the provincial governments, the financial ratios that exhibited an immediate effect at the city and municipal levels were mostly different from those that had a sustained effect. I believe that what happened here is that, at the beginning of the program, local units mostly set their focus on “low-hanging fruits” such as their uncommitted cash balance to total expenditure ratios. The difference, however, is that the provincial governments returned to their usual fiscal priorities and programming (thus resulting in only one sustained effect) while the other two concentrated on improving their performance in other fiscal areas during the years that followed.

Moreover, the findings also indicate that the New LGFPMS has contributed to reducing the local governments’ dependency on intergovernmental fiscal transfers. Table 5 reveals that the monitoring and benchmarking initiative has had an immediate effect on IRA dependency at the provincial level (-2.82%), a sustained effect at the city level (-1.90%), and an immediate (-1.33%) and sustained (-0.68%) effect at the municipal level.

While more findings support the improvement hypothesis, the evidence of isomorphism was nonetheless still visible. Of the 14 examined financial indicators, one showed signs of convergence at the provincial level and four at the city and municipal levels. Out of these nine significant findings, only one was indicative of positive isomorphism. To test the isomorphism hypothesis further, the percent change in the indicators’ interquartile ranges before and after the intervention was also examined. Like the Bartlett’s test, the residuals from the interrupted time-series model were used to account for other factors that might affect the results. Since the analysis is only limited to the middle 50% of the baseline observations, it made the findings less susceptible to any outliers that might have remained in the samples. However, as with previous studies, the statistical significance of these findings were not tested.

Table 6 reports the findings of the abovementioned procedure. At first glance, it would seem to suggest that there is greater evidence of isomorphism across all three types of local government. However, if the results were analyzed further, this would not be the case. By looking at the financial indicators that registered an interquartile range difference of more than 10%, it could be seen that the total is largely the same as the number of significant findings using Bartlett’s test—either in aggregate or at a per government level basis—and if ever there was an increase, it would be limited to one indicator at most.

### **Robustness Checks**

To test the consistency of the initial findings, two robustness checks were performed. The first one incorporates all observations in the analysis—meaning those that were initially taken out after being identified as outliers were now included in the studied samples. Meanwhile, the second test removes all observations from 2015, the first year the New LGFPMS was implemented, for possible policy contamination. Instead, FYs 2011 to 2014 and FYs 2016 to 2019 were used as the new pre- and post-intervention periods. Similar to the original approach, the samples for the second robustness check were also subjected to the outlier correction procedure specified in the earlier portion of this paper.

The results of the first robustness check indicate that, in general, the study’s baseline findings remain largely consistent even with the inclusion of outliers. Table 7

shows that apart from one immediate effect at the provincial level, all other evidence of improvement remained visible. When it comes to the changes in the indicators' standard deviations, Table 8 reveals additional evidence of isomorphism at the municipal level. However, the number of financial ratios that showed a decline in their interquartile ranges also decreased by one, both at the provincial and municipal levels.

Looking at the second robustness check, it could be seen that it had more notable differences compared to the baseline findings. Nevertheless, much of these variations support the initial conclusion that the monitoring and benchmarking initiative has led to beneficial changes in the local governments' fiscal performance. Table 9 shows that, at the provincial level, there were two additional indicators that had an immediate effect and one that had a sustained effect. Meanwhile, the city and municipal governments each had one additional indicator that had an immediate effect and one that had a sustained effect.

The most noteworthy difference between the two analyses, however, could be seen in the changes in the evidence of convergence. At the city level, ratios that exhibited negative isomorphism dropped from three to one while those that showed positive isomorphism grew from one to four. Although the difference is not as prominent, the same thing happened at the municipal level. Evidence of negative isomorphism declined from four indicators to three while the evidence of positive isomorphism grew from zero to two. I believe that much of these changes could be attributed to the sudden surge in the observations' raw values, particularly in 2016. Since observations for 2015 were removed from the analysis, there were substantial differences between the data values not just between 2014 and 2016, but also between the pre- and post-intervention periods in general. As such, this gave rise to more significant results, most of which have been favorable or ideal.

Finally, although the number of financial ratios that demonstrated a decline in their interquartile ranges doubled from four to eight at the provincial level, this was not seen as a threat to the initial conclusion. As shown in Table 10, all eight indicators only had a single-digit percentage change—with six of them registering a difference that is less than 5%.

Overall, most of the results from the baseline analysis and two robustness checks have been consistent. Significant changes in the means and standard deviations at each local government level were mostly found from the same indicators and followed the same trend. More importantly, the evidence of improvement remains more dominant across all three analyses even if Gerrish and Spreen's (2017) heuristics were applied. The implications of these findings are discussed in the following section.

**Table 7**  
*Percent Change in the Financial Indicators' Means (No Outlier Correction)*

Financial Indicators and Desired Inter-Period Change	Provincial Governments				City Governments				Municipal Governments			
	Immediate Effect	Evidence of Improvement?	Sustained Effect	Evidence of Improvement?	Immediate Effect	Evidence of Improvement?	Sustained Effect	Evidence of Improvement?	Immediate Effect	Evidence of Improvement?	Sustained Effect	Evidence of Improvement?
Revenue Indicators												
Revenue Growth	(+)	-11.89	No	No	-35.87	No	-7.57	No	1.75	No	-45.31***	No
Per Capita Locally Sourced Revenue + SEF	(+)	9.01	No	No	-14.47***	No	13.04***	Yes	-4.41	No	6.09***	Yes
Per Capita Growth in Locally Sourced Revenue	(+)	-1.33	No	No	20.45	No	31.93	No	0.45	No	-13.18	No
Percent of Locally Sourced Revenue to Total Revenue	(+)	5.97	No	No	-2.78	No	3.36***	Yes	-3.32**	No	3.74***	Yes
Percent of Annual Regular Income to Total Revenue	(+)	-0.69	No	No	0.18	No	-0.38	No	-0.61**	No	-0.08	No
Expenditure Indicators												
Total Expenditures per Capita	(+)	-0.33	No	Yes	-8.60**	No	12.52***	Yes	3.48	No	4.84**	Yes
Total Debt Service Expenditure Ratio	(-)	-20.30	No	No	-0.78	No	-2.99	No	-16.28***	Yes	3.08	No
Social Services Expenditure Ratio	(+)	0.84	No	No	-2.74	No	0.74	No	-3.76***	No	-1.06*	No
Economic Services Expenditure Ratio	(+)	1.34	No	No	-5.40	No	0.83	No	-2.19	No	-0.17	No
Debt and Investment Capacity Indicators												
Debt Service Ratio	(-)	-26.60*	Yes	No	-3.62	No	5.38	No	-17.01***	Yes	7.65***	No
Capital Investment Expenditures to Total Revenue Ratio	(+)	-14.84	No	No	-0.54	No	11.58**	Yes	2.18	No	11.38***	Yes
Net Operating Surplus to Total Revenue Ratio	(+)	9.12	No	No	11.62**	Yes	-20.88***	No	19.09***	Yes	-22.28***	No
Financial Management Capacity Indicators												
Uncommitted Cash Balance to Total Expenditure Ratio	(+)	33.27**	Yes	No	38.86***	Yes	-18.25***	No	40.81***	Yes	-10.35***	No
Other Indicators												
Internal Revenue Allotment Dependency	(-)	-2.82	Yes	No	1.21	No	-1.90***	Yes	-1.34***	Yes	-0.68***	Yes

*Notes.* The percent change in mean is computed by dividing the regression coefficient of  $\beta_2$  (for the immediate effect) and of  $\beta_3$  (for the sustained effect) with the mean of the pre-intervention period and multiplying the quotient by 100. In this study, performance improvement is defined as a statistically significant ( $p < 0.05$ ) beneficial change in the mean regardless of the change in the standard deviation.

The statistical significance of the ratios' corresponding regression coefficients are denoted as follows: \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

**Table 8**  
*Percent Change in the Financial Indicators' Standard Deviations and Interquartile Ranges (No Outlier Correction)*

Financial Indicators and Desired Inter-Period Change	Provincial Governments				City Governments				Municipal Governments			
	Change in SD	Evidence of Isomorphism?	Change in IQR	Evidence of Isomorphism?	Change in SD	Evidence of Isomorphism?	Change in IQR	Evidence of Isomorphism?	Change in SD	Evidence of Isomorphism?	Change in IQR	Evidence of Isomorphism?
<b>Revenue Indicators</b>												
Revenue Growth	(+) -2.54	No	2.21	No	-19.39***	Yes (NI)	-15.69	Yes	-37.14***	Yes (NI)	2.82	No
Per Capita Locally Sourced Revenue + SEF	(+) 13.52*	No	5.89	No	12.57**	No	9.87	No	29.55***	No	8.29	No
Per Capita Growth in Locally Sourced Revenue	(+) 0.27	No	0.45	No	40.60***	No	-4.88	Yes	-55.36***	Yes (NI)	-3.11	Yes
Percent of Locally Sourced Revenue to Total Revenue	(+) 3.12	No	0.27	No	0.41	No	4.47	No	2.35	No	3.15	No
Percent of Annual Regular Income to Total Revenue	(+) 0.56	No	2.65	No	-29.90***	Yes (NI)	-27.99	Yes	-17.63***	Yes (NI)	-20.42	Yes
<b>Expenditure Indicators</b>												
Total Expenditures per Capita	(+) -8.49	No	-6.43	Yes	0.46	No	-9.69	Yes	34.68***	No	-3.69	Yes
Total Debt Service Expenditure Ratio	(-) -8.82	No	-18.50	Yes	-16.90***	Yes (PI)	-18.03	Yes	-14.51***	Yes (NI)	-15.87	Yes
Social Services Expenditure Ratio	(+) 3.25	No	2.46	No	5.63	No	13.33	No	-2.37	No	1.74	No
Economic Services Expenditure Ratio	(+) -0.77	No	3.86	No	-5.02	No	2.34	No	-2.16	No	-14.37	Yes
<b>Debt and Investment Capacity Indicators</b>												
Debt Service Ratio	(-) -22.77***	Yes (NI)	-27.04	Yes	-25.77***	Yes (NI)	-24.35	Yes	-18.09***	Yes (NI)	-20.44	Yes
Capital Investment Expenditures to Total Revenue Ratio	(+) -3.32	No	2.87	No	0.06	No	1.11	No	24.99***	No	28.21	No
Net Operating Surplus to Total Revenue Ratio	(+) 3.05	No	0.34	No	-1.75	No	-1.88	Yes	49.51***	No	4.62	No
<b>Financial Management Capacity Indicators</b>												
Uncommitted Cash Balance to Total Expenditure Ratio	(+) 88.01***	No	41.94	No	4.27	No	5.51	No	37.02***	No	11.95	No
<b>Other Indicators</b>												
Internal Revenue Allotment Dependency	(-) 2.42	No	1.36	No	-0.77	No	2.15	No	11.60***	No	1.32	No

*Notes.* The percent change in standard deviation and interquartile range are computed as follows: (Post-Intervention SD or IQR – Pre-Intervention SD or IQR) / Pre-Intervention SD or IQR \* 100. The residuals from the developed model were used for both analyses. As a heuristic, PI or positive isomorphism is defined as a statistically significant ( $p < 0.05$ ) decline in the standard deviation and a beneficial sustained effect in the mean. Meanwhile, NI or negative isomorphism is defined as a statistically significant ( $p < 0.05$ ) decline in the standard deviation and an undesirable sustained effect in the mean. Finally, similar with previous studies, the percent change in the IQR were not tested for statistical significance.

The statistical significance of the changes in the standard deviations are denoted as follows: \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

**Table 9**  
*Percent Change in the Financial Indicators' Means (FY 2015 Excluded)*

Financial Indicators and Desired Inter-Period Change	Provincial Governments				City Governments				Municipal Governments			
	Immediate Effect	Evidence of Improvement?	Sustained Effect	Evidence of Improvement?	Immediate Effect	Evidence of Improvement?	Sustained Effect	Evidence of Improvement?	Immediate Effect	Evidence of Improvement?	Sustained Effect	Evidence of Improvement?
<b>Revenue Indicators</b>												
Revenue Growth	(+)	83.15*	Yes	No	15.18	No	28.95*	Yes	22.88**	Yes	-17.85***	No
Per Capita Locally Sourced Revenue + SEF	(+)	36.39***	Yes	No	-6.37	No	12.84***	Yes	-3.40	No	6.39***	Yes
Per Capita Growth in Locally Sourced Revenue	(+)	-16.27	No	No	43.83	No	31.50**	Yes	26.13*	Yes	12.36*	Yes
Percent of Locally Sourced Revenue to Total Revenue	(+)	8.50	No	No	-6.67***	No	-0.34	No	-7.62***	No	0.03	No
Percent of Annual Regular Income to Total Revenue	(+)	0.70	No	No	0.59	No	-0.80***	No	-0.39*	No	0.35***	No
<b>Expenditure Indicators</b>												
Total Expenditures per Capita	(+)	13.90**	Yes	Yes	-3.06	No	12.39***	Yes	11.79***	Yes	9.66***	Yes
Total Debt Service Expenditure Ratio	(-)	-18.79	No	No	-11.65	No	-8.35*	Yes	-21.54***	Yes	-2.13	No
Social Services Expenditure Ratio	(+)	1.33	No	No	-2.41	No	-1.23	No	-3.62**	No	-2.01***	No
Economic Services Expenditure Ratio	(+)	-9.53	No	No	-10.86**	No	-2.05	No	-3.66*	No	0.96	No
<b>Debt and Investment Capacity Indicators</b>												
Debt Service Ratio	(-)	-29.79*	Yes	No	-21.18**	Yes	-3.78	No	-25.22***	Yes	1.15	No
Capital Investment Expenditures to Total Revenue Ratio	(+)	15.12	No	Yes	-1.98	No	13.00**	Yes	7.29	No	17.19***	Yes
Net Operating Surplus to Total Revenue Ratio	(+)	35.49***	No	No	42.73***	Yes	-6.12**	No	46.53***	Yes	-2.75*	No
<b>Financial Management Capacity Indicators</b>												
Uncommitted Cash Balance to Total Expenditure Ratio	(+)	48.81***	Yes	No	77.73***	Yes	5.97	No	67.23***	Yes	7.26***	Yes
<b>Other Indicators</b>												
Internal Revenue Allotment Dependency	(-)	-1.18	No	No	3.43***	No	-0.12	No	0.05	No	-0.41**	Yes

*Notes.* The percent change in mean is computed by dividing the regression coefficient of  $\beta_2$  (for the immediate effect) and of  $\beta_3$  (for the sustained effect) with the mean of the pre-intervention period and multiplying the quotient by 100. In this study, performance improvement is defined as a statistically significant ( $p < 0.05$ ) beneficial change in the mean regardless of the change in the standard deviation.



**Table 10**  
*Percent Change in the Financial Indicators' Standard Deviations and Interquartile Ranges (FY 2015 Excluded)*

Financial Indicators and Desired Inter-Period Change	Provincial Governments				City Governments				Municipal Governments			
	Change in SD	Evidence of Isomorphism?	Change in IQR	Evidence of Isomorphism?	Change in SD	Evidence of Isomorphism?	Change in IQR	Evidence of Isomorphism?	Change in SD	Evidence of Isomorphism?	Change in IQR	Evidence of Isomorphism?
<b>Revenue Indicators</b>												
Revenue Growth	(+) 0.70	No	-0.93	Yes	-24.87***	Yes (PI)	-17.38	Yes	13.54***	No	-6.82	Yes
Per Capita Locally Sourced Revenue + SEF	(+) -1.63	No	-2.97	Yes	14.76**	No	21.20	No	45.00***	No	41.51	No
Per Capita Growth in Locally Sourced Revenue	(+) -0.69	No	4.47	No	-12.60**	Yes (PI)	-5.54	Yes	-12.29***	Yes (PI)	-11.78	Yes
Percent of Locally Sourced Revenue to Total Revenue	(+) 2.37	No	5.48	No	0.52	No	3.77	No	0.92	No	3.97	No
Percent of Annual Regular Income to Total Revenue	(+) -2.36	No	14.08	No	-16.41***	Yes (NI)	-0.44	Yes	-10.10	Yes (NI)	-39.30	Yes
<b>Expenditure Indicators</b>												
Total Expenditures per Capita	(+) -8.14	No	-3.01	Yes	-3.31	No	-5.28	Yes	3.05*	No	-1.43	Yes
Total Debt Service Expenditure Ratio	(-) -3.61	No	-7.90	Yes	-18.43***	Yes (PI)	-18.32	Yes	-15.37***	Yes (PI)	-15.39	Yes
Social Services Expenditure Ratio	(+) 3.48	No	3.91	No	5.97	No	20.68	No	-2.53	No	1.88	No
Economic Services Expenditure Ratio	(+) -0.38	No	-1.01	Yes	-4.00	No	2.68	No	-4.62***	Yes (NI)	-18.31	Yes
<b>Debt and Investment Capacity Indicators</b>												
Debt Service Ratio	(-) -10.72*	Yes (NI)	-9.71	Yes	-28.45***	Yes (PI)	-27.08	Yes	-13.52***	Yes (NI)	-17.49	Yes
Capital Investment Expenditures to Total Revenue Ratio	(+) -5.28	No	-4.55	Yes	-1.68	No	-3.89	Yes	22.59***	No	28.49	No
Net Operating Surplus to Total Revenue Ratio	(+) 2.48	No	-1.53	Yes	-2.24	No	0.77	No	14.61***	No	6.15	No
<b>Financial Management Capacity Indicators</b>												
Uncommitted Cash Balance to Total Expenditure Ratio	(+) 80.59***	No	49.48	No	3.92	No	28.11	No	30.45***	No	22.42	No
<b>Other Indicators</b>												
Internal Revenue Allotment Dependency	(-) -1.46	No	0.58	No	-0.22	No	2.51	No	12.06***	No	1.09	No

*Notes.* The percent change in standard deviation and interquartile range are computed as follows: (Post-Intervention SD or IQR – Pre-Intervention SD or IQR) / Pre-Intervention SD or IQR \* 100. The residuals from the developed model were used for both analyses. As a heuristic, PI or positive isomorphism is defined as a statistically significant (p < 0.05) decline in the standard deviation and a beneficial sustained effect in the mean. Meanwhile, NI or negative isomorphism is defined as a statistically significant (p < 0.05) decline in the standard deviation and an undesirable sustained effect in the mean. Finally, similar with previous studies, the percent change in the IQR were not tested for statistical significance.

The statistical significance of the changes in the standard deviations are denoted as follows: \*p < .05, \*\* p < .01, \*\*\* p < .001.

### Discussion

The results of this study contribute to the ongoing debate on the impact of performance management regimes, particularly of fiscal monitoring and benchmarking programs. Previous studies have argued that the use of such initiatives is like a double-edged sword that, if not thought out carefully, could lead to undesirable outcomes. On one hand, they provide actors with vital performance information that could motivate them to take on policy decisions that would ideally address their weak areas (Rivenbark & Roenigk, 2011). On the other, they subject actors to various isomorphic pressures, pulling those who are at the extreme ends to converge toward the mean or the common outcome (Gerrish & Spreen, 2017).

In sum, the study's findings generally suggest that the implementation of the New LGFPMS has led to beneficial changes in the fiscal performance of local governments in the Philippines. This, however, is contrary to earlier studies which found that fiscal monitoring and benchmarking initiatives, particularly among local units, tend to result in isomorphism. I hypothesize that this inconsistency could be explained by the inherent characteristics of the analyzed samples. Since there is still a huge disparity among local governments in the Philippines—whether it is in terms of their social, economic, political, or administrative maturity levels—this made them less susceptible to various isomorphic pressures. Unlike their more established counterparts in Spain and the United States, it is possible that their fiscal behavior remains largely shaped by individual needs and capacity rather than by institutional forces among others.

Nevertheless, this does not dismiss isomorphism as a potential outcome. As the results have shown, there is also considerable proof of convergence among the examined indicators. Although it was not the dominant finding in this study, I believe that once a certain level of homogeneity on the local governments' conditions has been reached, it is possible that isomorphism would become inevitable. In the case of the Philippines where spending on debt, social, and economic services are used as indicators, there will come a time when the spending ratios on these areas would reach a "convergence point" which units would eventually move towards. Nevertheless, that level of homogeneity is something future studies could discuss.

Second, the findings also highlight the importance of having clear and relevant goals in an effort to monitor and benchmark performance. To illustrate, the BLGF (2015) has set that a local government's uncommitted cash balance to total expenditure ratio should be greater than or equal to the average of the income class to which it belongs, and ideally should be increasing over time. However, scholars and practitioners have already raised concerns about the growing underspending among these LGUs. More recently, the World Bank (2021) released a report stating that implementation of the Mandanas ruling could worsen this fiscal imbalance and underspending among local governments due to their lack of capacity to absorb significant revenue increases.

Finally, the findings of this study also shed light on the immediate and sustained effects of fiscal monitoring and benchmarking programs. In this case, it was observed that across all three government levels, indicators that exhibited a desirable sustained effect were largely different from those that had immediate improvement. Although this should be taken with a grain of salt, I believe that this is a manifestation of the local units' instant gratification behavior where they set

their focus on easily attainable goals at the beginning of the program usually in an effort to secure a more positive or favorable first impression. Nevertheless, it is also possible that there was simply a strategic or a needs-driven shift in priorities among the assessed units as time passed by.

### Conclusion

To conclude, this study examines how the implementation of the New LGFPMS, a performance management system that relies on monitoring and benchmarking as an improvement strategy, impacted the fiscal performance of local governments in the Philippines. Using the financial records of the country's provincial, municipal, and city governments from 2012 to 2019, it analyzes whether the changes in the units' financial ratios are signs of improvement or convergence. The results of the analyses show that, in aggregate, the evidence of improvement was more dominant across all three cases. Preliminary proof that the initiative helped ease the IRA dependency of the LGUs was also found, although the length of its impact varies for each government level. Altogether, the study's findings support the broader notion that performance management systems indeed improve organizational outcomes.

Nevertheless, substantial evidence of isomorphism was likewise uncovered among the examined financial indicators. Although not as rife, they still warrant considerable attention, especially since most of those that were identified suggest a convergence that is headed in an unfavorable direction. Future studies could further explore the concepts of positive and negative isomorphism in the public sector, including under what kind of reforms or conditions they become more visible.

Finally, it is important to note that this study has three major limitations. First, since the examined local governments were subjected to the new system all at the same time, having a control group in the datasets became impossible. This limitation made it difficult to estimate what could have happened to the indicators if the intervention was not carried out (more commonly known as the counterfactual). Likewise, due to the paucity of available data, particularly during the years prior to the intervention, the study had to work with panel datasets that had time points less than ideal. Second, apart from the four covariates, the developed model does not account for any other factors or events that could have affected the fiscal performance of the local governments. Although interrupted time-series models usually just operate on three time-based variables, recent studies suggest that there are other potential factors that could affect fiscal health, such as election cycles (García-Sánchez et al., 2014). Finally, since this study only employs 13 of the 20 New LGFPMS indicators, it is possible that the inclusion of the other seven could alter the results and overall conclusion. Future studies could look into these limitations and help deepen our understanding of the impacts of performance management regimes in the public sector, particularly in developing nations.

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