

Economic and Political Factors Affecting Local Firm Productivity Among Philippine Cities

Kenneth Michael A. De Castro*

ABSTRACT

While firm productivity is largely driven by economic factors such as availability of labor, capital, resources, and markets, local governments play a crucial role in enhancing productivity within their respective jurisdictions. Their influence extends across various sectors and functions, making them indispensable to economic development. However, limited studies were done in the context of developing economies, including the Philippines; hence, this study offers the novelty of being one of the few to examine the effect of selected economic and political factors on local firm productivity among cities in the Philippines. Using a panel data covering five years from 2019 to 2023, among the economic factors, the size of the local economy and the level of financial deepening significantly affect local firm productivity, while among the political factors, the city's degree of autonomy significantly affects local firm productivity. This study aims to help local government units create and implement crucial economic and governance policies as an enabling mechanism for sustainable economic development.

Keywords: Government efficiency, firm productivity, governance, local government units, public policy

* De La Salle University, Philippines

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INTRODUCTION

Productivity compares the output of a firm (e.g., revenues from the sale of goods and services) with the input, or resources (e.g., physical, financial, and human capital), required to produce it (Kenton, 2024). Economists see productivity as a vital source of economic growth and competitive advantage, and consequently, it is used to forecast future levels of gross domestic product (GDP) (Kenton, 2024). As such, firms have that overarching goal of maximizing the use of their current resources to deliver sustainable economic impact. The role of the government in spearheading the productivity of these firms, however, must be emphasized. In the contemporary world, state and local governments deal with inadequacy of resources, whether due to the inability to raise enough tax revenues or inefficiencies in implementing public policies (Mann, 1980). Addressing these unexpected changes and challenges in the light of economic, financial, and political crises allows governments to enforce reforms to better fulfill their political mandate and social functions (Negri & Dinca, 2023).

Previous studies have emphasized how efficient delivery of local public services (Negri & Dinca, 2023; Distor & Khaltar, 2022; Giordano et al., 2015), economic growth and development (Surya et al., 2021; Halkos & Tzeremes, 2007; Miller, 1978), financial deepening (Ho et al., 2018; Dabla-Norris et al., 2015), and degree of local autonomy (Jong et al., 2021; Mann, 1980) affect the ability of the local firms to produce more to create sustainable economic impact. For instance, Negri & Dinca (2023) emphasized that “governance quality is directly connected with the public sector’s performance, quality, and quantity of public services, efficient allocation of public resources, and increasing citizen’s satisfaction through increasing living standards (p. 3)”. Hence, capacity-related factors such as better institutional quality, better technological infrastructure, and a more advanced financial system can help local governments provide a more inclusive environment to local firms.

Highlighting the significance of the local government’s role, it pays to study the effect of these economic and political factors on the ability of local firms to stimulate further economic development. As such, the study aims to answer the following questions:

- (1) What is the effect of selected economic factors (e.g., size and growth of local economy, and level of financial deepening) on local firm productivity?
- (2) What is the effect of selected political factors (e.g., local government efficiency in providing public services and level of autonomy) on local firm productivity?

REVIEW OF RELATED LITERATURE

2.1 Effect of local government efficiency in public services delivery on local firm productivity

Previous studies have highlighted the connection between public sector efficiency and economic growth and development, including increased local firm productivity. First, investment in healthcare strengthens human capital and improves productivity, which ultimately leads to economic performance (Raghupathi & Raghupathi, 2020). Financial commitment in health investment is critical to the well-being of a nation (Ndaguba & Hlotywa, 2021). Other studies also highlighted the positive relationship between healthcare expenditure and various economic indicators such as gross domestic product (GDP) and labor productivity, particularly in the developed economies in the European Union (Ozyilmaz, et al., 2022; Piscopo et al., 2024) and in developing economies such as West Africa and rural eastern China (Onya et al., 2024; Wei et al., 2018).

Second, in the European Union, public expenditures on education indirectly lead to output increases due to a more competitive labor workforce (Coronel & Diaz-Roldan, 2024). Workers from areas with larger shares of education-related expenditures had a significantly higher firm-level labor productivity (Lebedinski & Vandenberghe, 2014). In developing countries where private expenditures in education are undersupplied, education may be considered as a merit good, thereby putting more emphasis on the role of the public sector in providing quality education (Idrees & Siddiqi, 2013). Third, innovation-driven economies are seen to be more competitive as they present a more robust and stable business environment for entrepreneurs (Nave & Rodrigues, 2022). Local governments should help small and medium-sized enterprises, such as start-ups, to become more productive (Agostino et al., 2020). The quality of these local government institutions, through effective enforcement of property rights, quality of the nation’s legal system, and control of corruption, exhibited a significant positive effect on firm’s total factor productivity and firm value, both in developed and developing economies (Parsa & Datta, 2023; Chang, 2022; Appiah et al., 2020).

Fourth, increased spending on social protection programs (e.g., unemployment insurance and social security benefits) in Indonesia led to an increase in per-worker revenue gain (Torm, 2019). Increased contributory social protection in low-income and middle-income countries led to increased formalization of enterprises and workers, as it emphasizes the effect of implementing varying social protection schemes on long-run economic development (Torm & Oemhe, 2024). Lee and Chang (2006) also highlighted such a relationship through a long-run equilibrium between GDP, capital stock, and social security expenditures after accounting for heterogeneous country effects. Lastly, Islam (2016) found that a greater police force deters more criminal activities experienced by local firms, most especially crimes against private property. However, other studies also highlighted the potential adverse long-run effect increased defense spending has on economic growth as it takes money away from infrastructure investment (Rooney, 2021; Saba & Ngepah, 2020; Galvin, 2003). Defense spending should be limited to the maintenance of internal law and order as well as protecting the nation against any form of external aggression (Ajefu, 2015). As such, the following research hypothesis is presented:

H1: Local government efficiency in public service delivery significantly affects local firm productivity.

2.2 Effect of local economic development on local firm productivity

Existing studies have also associated the size and growth of the local economy with local firm productivity. Surya et al. (2021) explored the relationship between economic growth, local productivity of small and medium-sized enterprises (SMEs), and open innovation in Indonesia. Their findings indicate that economic growth, alongside technological innovation, significantly increases SME productivity, while also highlighting the role of local governments in implementing policies, providing business capital support, and investing heavily in human capital to positively impact local SME development. In addition, Halkos and Tzeremes (2007) also emphasized that productivity growth patterns differ across firm sizes over the period under study. Productivity growth is more amplified toward small and medium-sized businesses. This can also have an impact on the study, albeit in a local government setting, as almost 60% of the Philippines' gross domestic product is produced by small businesses (Ta-Asan, 2024). Local governments, depending on their resources, necessitate distinct strategies for acquiring resources and increasing the productivity of local firms. Larger firms may benefit from economies of scale, while small firms may capitalize on their flexibility and their agility in responding to changing market conditions. Finally, Miller (1978) also emphasized the need for local governments to implement economies of scale in the distribution of public resources to support local firms, such as the implementation of technology, especially in the manufacturing sector, as it can influence plant-level and firm-level productivity. As such, the following research hypothesis is presented:

H2: The size of the local economy significantly affects local firm productivity.

H3: The year-on-year growth of the local economy significantly affects local firm productivity.

2.3 Effect of financial deepening on local firm productivity

Financial deepening encompasses expanding access to financial services, strengthening financial institutions and markets, diversifying funding sources, and enhancing the efficiency of financial intermediation (Dabla-Norris et al., 2015). A well-managed financial deepening can support macroeconomic stability and promote inclusive economic growth. The ability of the local governments to establish structural infrastructure that allows for the growth of financial services in the city, such as strengthening protection of property rights, improving contract enforcement, and enhancing local governance measures, significantly increases local firm's economic performance, yielding more sustainable returns. Further, Ho et al. (2018) investigated the relationship between financial deepening, political institutions, and innovation. The authors argued that political institutions, such as local government units (LGUs), are crucial for financial deepening to effectively foster innovation and increased productivity. The authors suggested that differences in the required level of democracy or autonomy provided to the capital markets by these political institutions have a positive impact on innovation and productivity. Further, states that seek to promote innovation should prioritize both financial sector development and political reforms surrounding these democratic institutions.

In addition, well-designed investment promotion and facilitation policies allow for more foreign direct investments (FDI). FDI positively stimulates economic growth in the long run, but is contingent on other macroeconomic factors such as money supply, human capital, total domestic investment, and availability of domestic credit for the private sector (Dinh et al., 2019; Iamsiraroj, 2016). Moreover, the development of the financial markets, especially in the developing economies of Southeast Asia, amplifies the effect of FDI on each

nation's growth (Nguyen, 2022). A dynamic socio-economic system, such as effective government policies on FDI, and the maturity of the investing public significantly contribute to economic development (Zakharova et al., 2020; Azman-Saini et al., 2010). As such, the following research hypothesis is presented:

H4: The city's level of financial deepening significantly affects local firm productivity.

2.4 Effect of degree of local government autonomy on local firm productivity

Previous studies have highlighted that a local government's degree of autonomy, such as its ability to raise financing through imposition of local taxes, its obligation to share tax revenues at a provincial or regional level, and the extent of internal revenue allocation it receives from the taxes imposed at the national level. Such factors do influence policy-making considerations at the local level, as they eventually affect the delivery of public services and stimulation of local economic growth. Jong et al. (2021) particularly emphasized the connection between subnational governance and urban labor productivity, concentrating on the interplay of decentralization (local autonomy), government quality, and fragmentation. The findings indicate that government quality positively affects urban labor productivity, but such relationship is moderated by the level of decentralization and fragmentation among local governments. Also, local autonomy can have a positive or negative effect on urban-level productivity, depending on how local governments implement targeted growth strategies better suited to local firms' needs. Lastly, fragmentation has a negative effect on urban level productivity, espousing the creation of metropolitan or regional governance, in addition to local autonomy, to help coordinate economic activities, especially in cities with shared product and labor markets. In addition, Mann (1980) argued that enhancing productivity requires navigating various political constraints, demanding a shift in responsibilities among government levels. Overall, the author emphasized the importance of political will, strategic planning, and collaboration with labor unions in achieving sustained productivity improvement.

In the Philippines, the degree of autonomy among LGUs is provided under Republic Act 7160, or the Local Government Code of 1991, which specifies that cities, in particular, can be classified into highly urbanized, independent, or component cities. Under Section 452 of the Code, highly urbanized cities are LGUs autonomous from provinces, and have a "minimum population of 200,000 and an annual income of P50 million, in 1991 constant prices" (R.A. 7160, p. 178). Section 29, on the other hand, defined independent component cities as cities outside of provincial jurisdiction whose charters prohibit their voters from actively electing their provincial officials (R.A. 7160, 1991). Lastly, component cities are those cities that did not meet the above requirements of either a highly-urbanized or an independent component city. The degree of autonomy provided to highly-urbanized and independent component cities is higher, as according to Section 25, the President of the Philippines solely exercises direct authority over these cities, unlike component cities, which are under the direct administration of their respective provincial governments. Finally, while LGUs may levy taxes, fees, and charges to sustain its fiscal performance, Section 151 indicates that "taxes, fees, and charges collected by highly-urbanized and independent component cities shall accrue to them and distributed following the provisions of this Code, along with their respective charters" (R.A. 7160, 1991, p. 69). As such, the following research hypothesis is presented:

H5: The city's degree of local autonomy significantly affects local firm productivity.

These extant literatures have emphasized the importance of the following economic and political factors in increasing the degree of productivity of local firms within their respective jurisdictions. However, these existing studies only highlighted the relationship among these constructs in the context of developed economies such as the European Union, where markets and institutions are considered mature (Giordano, 2015; Fadic et al., 2019), thereby neglecting the significance of this study in the context of developing economies such as the Philippines. As for the Philippine context, existing studies only presented an empirical discussion on what motivates local governments to become efficient (Distor & Khaltar, 2022), or how competitiveness among cities and municipalities in the Philippines are measured in terms of the delivery of public services (Villamejor-Mendoza, 2020), without particularly highlighting how these economic and political factors play an interconnected role in enhancing local firm productivity. Hence, to the best of the author's knowledge, this paper offers the novelty of being one of the few studies in the Philippines to highlight this research model. Through the results of this study, it aims to help LGUs in the Philippines, as well as those of Southeast and South Asia, where delivery of public services and quality of markets and institutions are still largely underdeveloped and still present a lot of issues on inequality. Finally, this study also aims to promote good governance practices through the initiation of policy reforms for a more inclusive and sustainable local economic development.

RESEARCH FRAMEWORK

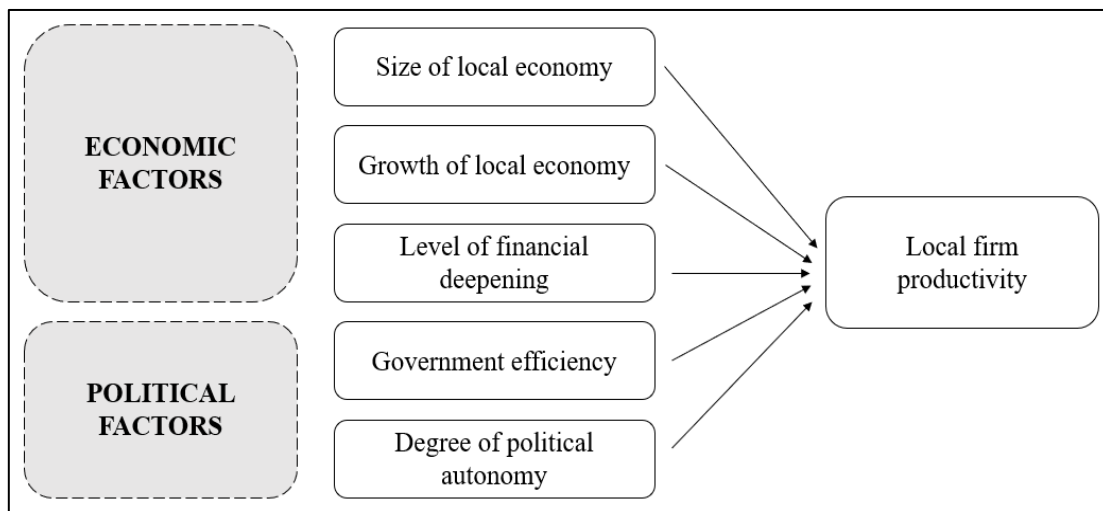
3.1 Theoretical Framework

The effect of these economic and political factors on local firm productivity is grounded on two important theories: the agency theory by Jensen and Meckling (1976) and the institutional theory by Meyer and Rowan (1977). Duly elected public service officials act as agents of the voting public. It is expected that these officials should act in the public's best interest by promoting a more efficient delivery of public services. They should not be insulated from any moral hazards that their constituents may suffer because of their deviant behavior, such as betrayal of public trust, mismanagement of public funds, and abuse of power and influence. Further, LGUs, being the authoritative body that sets rules and regulations for each city, also affect social and economic behavior, including local firm productivity.

3.2 Operational framework

Using the above theoretical foundation, the framework of the study is presented below:

FIGURE 1: OPERATIONAL FRAMEWORK OF THE STUDY



Source: Author's own

RESEARCH METHODOLOGY

4.1 Research Design

The study utilizes a quantitative and causal research design that aims to establish and quantify the relationship between the predictor constructs (local government efficiency, size and growth of local economy, level of financial deepening, and degree of political autonomy) and the outcome construct (local firm productivity). The definition and measurement of the constructs to be used in the study are presented in Table 1:

TABLE 1: DESCRIPTION OF INDEPENDENT AND DEPENDENT CONSTRUCTS

Construct	Indicator	Description	Source
Local firm productivity (Y)	Local firm productivity index	A country's economic growth is fundamentally driven by the returns on investments, and these returns are directly linked to how productive that economy is. Therefore, a more competitive economy is better positioned for sustained growth.	Cities and Municipalities Competitiveness Index

Government efficiency (X_1)	Ratio of expenditures on general, social, and economic services to total current operating revenues of each city	It refers to how well a government provides reliable services and strong support to help businesses and the economy grow in a way that's both effective and sustainable.	BLGF Annual Statement of Revenues and Expenditures (SRE) for each city
Size of local economy (X_2)	Size of local economy index	Locally, we can gauge economic activity by looking at total sales, which reflect how much is being produced. We also consider the number of new businesses and the money they are investing, as these show the level of new local investment.	Cities and Municipalities Competitiveness Index
Growth of local economy (X_3)	Local economy growth index	The vitality of the local economy can also be measured by the growth rate of production activities, the number of operating establishments, and the level of investment within the area.	Cities and Municipalities Competitiveness Index
Level of financial deepening (X_4)	Financial deepening index	The number of financial institutions in an area typically indicates its financial development. More advanced local government units (LGUs) in urban centers tend to have a greater presence of banks and financial services compared to less developed or lower-income LGUs.	Cities and Municipalities Competitiveness Index
Degree of political autonomy (X_5)	A binary value is assigned for each city's classification.	If the city is a highly urbanized or an independent component city that enjoys a high degree of autonomy = 1 If the city is a component city that is highly reliant on the provincial government = 0	Local Government Code of 1991 BLGF Annual Statement of Revenues and Expenditures for each city

Source: Author's own

4.2 Population and sampling design

This study includes all cities across the Philippines. We used a total population sampling method, which involves intentionally selecting every city that fits the study's specific requirements. The information collected is based on secondary data and spans five years, from 2019 to 2023. The detailed selection criteria are presented in Table 2.

TABLE 2: SELECTION CRITERIA OF CITIES IN THE PHILIPPINES FOR ANALYSIS

Criteria	Cities in the Philippines	Source
Number of cities in the Philippines	149	BLGF Latest SRE (2023)
<i>Exclusions:</i>		
Cities not yet existing as of January 1, 2019	(4)	
Cities existing as of January 1, 2019, but with incomplete information	(5)	
Total number of cities for analysis	140	

Source: Author's own

4.3 Data Analysis

The following procedures were used to analyze the data collected in the study:

1. Descriptive statistics such as the mean and standard deviation of the constructs under study were presented before any inferential analyses.
2. Multicollinearity among the predictor constructs was assessed using their variance inflation factors. A VIF of above 5 indicates a severe threat of multicollinearity (Akinwande et al., 2015).
3. Normality in the distribution of data was assessed using the Shapiro-Wilk test, where a p-value greater than the alpha level of 0.05 indicates that the data follows a normal distribution (Bikos, 2024).
4. Threat of heteroscedasticity was assessed using the Breusch-Pagan Lagrange Multiplier Test, which determines whether the error term's variance remains constant or displays systematic patterns concerning the independent variables. If a significant threat of heteroscedasticity was detected, alternative modelling approaches, such as employing robust standard errors (e.g., Huber-White standard errors) or transforming the dependent variable, may address the issue (Reed University, n.d.).
5. The threat of autocorrelation was assessed using the Durbin-Watson Test Statistic. If a significant threat of autocorrelation was detected, robust standard errors such as the Huber-White method or the Newey-West method, or the cluster-robust method may be used (LinkedIn, n.d.).
6. Lastly, to test the research hypotheses, the study assessed whether to use to fixed effects or random effects model using the Hausman test. A p-value greater than the alpha level of 0.05 indicates the use of the random effects model, while a p-value less than the alpha level of 0.05 indicates the use of the fixed effects model (Uy, 2021).

The regression equation used in this study is shown below:

$$LFP_{it} = \beta_0 + \beta_1 EFF_{it} + \beta_2 SLE_{it} + \beta_3 GLE_{it} + \beta_4 FIN_{it} + \beta_5 DLA_{it} + \epsilon_{it}$$

Where:

LFP _{it}	Level of local firm productivity; i = city, and t = year
B _i , where i = 1, 2, 3...	The regression coefficient represents the change in the outcome construct for 1% change in the predictor construct while holding the other independent variables in the model constant
EFF	Government efficiency index (measure of political development of an LGU)
SLE	Size of local economy index (measure of economic development of an LGU)
GLE	Growth of local economy index (measure of economic development of an LGU)
FIN	Financial deepening index (measure of economic development of an LGU)
DLA	Degree of local autonomy (a binary value, measure of political development of an LGU)

RESULTS AND ANALYSIS

5.1 Data Overview

The following abbreviations were used for the constructs under study:

TABLE 3: ABBREVIATIONS USED FOR EACH CONSTRUCT

Construct	Type of construct	Abbreviation
Local government efficiency	Predictor constructs	log (EFF)
Size of the local economy		log (SLE)
Growth of the local economy		log (GLE)

Financial deepening	Dependent construct	log (FIN)
Degree of local autonomy		DLA
Level of local firm productivity		log (LFP)

Source: Author's own

5.2 Descriptive Statistics

The measures of central tendency and variation for the constructs used in the study are presented as follows:

TABLE 4: DESCRIPTIVE STATISTICS

	log (LFP)	log (EFF)	log (SLE)	log (GLE)	log (FIN)	DLA
N	700	700	700	700	700	700
Mean	- 0.947	-0.197	-1.25	-1.03	- 0.458	0.271
Median	- 0.924	-0.187	-1.31	-1.07	- 0.419	0.00
Standard deviation	0.661	0.0996	0.665	0.749	0.363	0.445
Minimum	-3.70	-0.626	-4.00	-3.70	-2.28	0
Maximum	0.398	0.173	0.398	0.398	0.398	1

Source: Author's own

Based on the data obtained from 140 Philippine cities covering five years from 2019-2023, the observations for each construct are close to the mean; hence, the degree of variability is considered low. Further, as this is already transformed into its logarithmic form, these observations represent the percentage change in the outcome construct for a 1% change in the predictor construct while holding the other independent variables in the model constant. It should be noted, however, that since it is a binary value, DLA was not transformed into its logarithmic form.

5.3 Regression Analysis

Table 5 presents the diagnostic tests before determining the appropriate panel regression model:

TABLE 5: PRE-ESTIMATION DIAGNOSTIC TESTS

Test	Results	Analysis												
a. Shapiro-Wilk Test (normality)	Test statistic = 0.923; p < 0.001	Data does not follow a normal distribution												
b. Variance inflation factor (multicollinearity)	<table><tr><th>Construct</th><th>VIF</th></tr><tr><td>log (EFF)</td><td>1.06</td></tr><tr><td>log (SLE)</td><td>1.75</td></tr><tr><td>log (GLE)</td><td>1.32</td></tr><tr><td>log (FIN)</td><td>1.75</td></tr><tr><td>DLA</td><td>1.32</td></tr></table>	Construct	VIF	log (EFF)	1.06	log (SLE)	1.75	log (GLE)	1.32	log (FIN)	1.75	DLA	1.32	No excessive collinearity among predictor constructs.
Construct	VIF													
log (EFF)	1.06													
log (SLE)	1.75													
log (GLE)	1.32													
log (FIN)	1.75													
DLA	1.32													
c. Breusch-Pagan Test (heteroscedasticity)	Test statistic = 54.822; p < 0.001	Variance of the residuals is not constant across all levels of predictor constructs.												
d. Durbin-Watson Test (serial correlation)	Test statistic = 1.57; p < 0.001	Values are likely to continue to change in the future as they have in the past.												

Source: Author's own

To address the issues of non-normality and heteroscedasticity, the regression analysis used Huber-White's robust standard errors (Reed University, n.d.). While for the issue of serial correlation, a Durbin-Watson test statistic between 1.50 – 2.50 is considered acceptable (SAP, n.d.). According to econometric literature, serial correlation is highly likely to be present among panel data models (Henningsen & Henningsen, 2019; Basak & Das, 2018; De Hoyos & Sarafidis, 2006).

5.4 Panel Regression Model

The study ran the panel regression model to determine whether to use the random effects or fixed effects model. The result of the Hausman test (Test statistic = 25.716; $p < 0.001$) suggested that the fixed effects model be used in the study. Table 6 presents the results of panel regression using fixed effects.

TABLE 6: PANEL REGRESSION USING FIXED EFFECTS MODEL

		95% CI					
	Coefficient	Lower	Upper	SE	p		Hypothesis Testing
const	-0.159634	-0.322476	0.003208	0.082361	0.0546	*	
log (EFF)	-0.240715	-0.574151	0.092721	0.168642	0.1557		NS
log (SLE)	0.540642	0.434134	0.647150	0.053869	3.66e-18	***	S
log (GLE)	0.057598	-0.042893	0.158088	0.050825	0.2591		NS
log (FIN)	0.364520	0.228378	0.500663	0.068857	4.56e-07	***	S
log (DLA)	0.252631	0.139937	0.365325	0.056998	1.88e-05	***	S

Source: Author's own

Model specifications: $R^2 = 0.633$; Adjusted $R^2 = 0.616$

Note: * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$; NS = not supported, S = supported

Based on the panel regression results using the fixed effects model, the adjusted R^2 of 0.616 means that 61.6% of the variability in the outcome construct can be predicted by the identified predictor constructs. According to Ozili (2022), an R -squared of at least 0.10 is generally acceptable for social science research, especially when most or all of the predictor constructs are statistically significant.

The panel regression results are explained as follows:

5.4.1 The efficiency of the LGUs in the delivery of public services does not significantly affect local firm productivity.

The first research hypothesis determines whether the efficiency of LGUs in delivering public services significantly affects local firm productivity. However, based on the panel regression results, the first hypothesis is not supported. While this result is different from previous literature, it is important to note that the efficient delivery of public services affects, in general, local economic growth and development, which later on, may affect the productivity of local firms; hence, such effect is only indirect. Further, in a market economy such as the Philippines, an increase in the productivity of local firms is usually tied to economic or market factors, rather than solely to political or governance strategies of local governments.

5.4.2 Size of the local economy significantly affects local firm productivity.

The second research hypothesis determines whether the size of the local economy significantly affects local firm productivity. Based on the panel regression results, the second hypothesis is supported. This supports the studies of Surya et al. (2021), Halkos and Tzeremes (2007), and Miller (1978), where local economies that take advantage of economies of scale enable local firms to generate higher returns, especially for small and medium-sized businesses. Further, as more forms of capital are available, such as physical, human, and financial capital, firms are more likely to establish their operations in these cities, thereby stimulating local economic development.

5.4.3 Growth in the local economy does not significantly affect local firm productivity.

The third research hypothesis determines whether the growth in the local economy significantly affects local firm productivity. However, based on the panel regression results, the third hypothesis is not supported. While local economic growth can create a more vibrant economy, it does not inherently lead to increased productivity for all local firms due to factors such as the quality of inputs (Lehene et al., 2024), market dynamics (Rodriguez-Castelan et al., 2020), employment strategies (Sutherland, 2023), and the effectiveness of economic policies (Bartik, 2020). Understanding these nuances is crucial for policymakers aiming to foster sustainable growth that benefits all sectors within the local economy.

5.4.4 The level of financial deepening significantly affects local firm productivity.

The fourth research hypothesis determines whether the level of financial deepening significantly affects local firm productivity. Based on the panel regression results, the fourth hypothesis is supported. This supports the

studies of Ho et al. (2018) and Dabla-Norris et al. (2015), where deeper financial systems can increase resilience to economic shocks, promote investment, and enhance the effectiveness of local firms. Further, a local government's openness to investment opportunities and its ability to portray itself as a competitive financial hub effectively promote innovation and local economic growth.

5.5.5 The degree of autonomy of the local government significantly affects local firm productivity.

The fifth research hypothesis determines whether the degree of autonomy of an LGU significantly affects local firm productivity. Based on the panel regression results, the fifth hypothesis is supported. This supports the studies of Jong et al. (2021) and Mann (1980), where government quality positively affects urban productivity. Increased autonomy allows for increased responsiveness to local needs and preferences. Further, the autonomy provided to certain cities by the Local Government Code of 1991 also allows for local governments to efficiently facilitate economic policies that will enable further development. However, it is also important to note the pitfalls of increased autonomy of LGUs to the overall development of a country, as this increased fragmentation will exacerbate the inequality among different cities in the Philippines, creating an imperial mindset for more autonomous cities.

The author recognizes that the results of the study may be limited in scope as it used robust standard errors rather than the respective level values. Further, the results of the study may be affected by the presence of serial correlation and cross-sectional dependence, as the data for these LGUs are collected repeatedly over several consecutive years.

CONCLUSIONS AND RECOMMENDATIONS

In this study, the author emphasized that the selected economic and political factors affect the productivity of local firms within a specific jurisdiction. Based on the results of the study, among the economic factors, the ability of local governments to utilize economies of scale in providing basic public services reduces cost and significantly improves the quality of local firm inputs. Further, the ability of the local governments to establish structural infrastructure that allows for the growth of financial services in the city, such as strengthening protection of property rights, improving contract enforcement, and enhancing local governance measures, significantly increases local firm's economic performance, yielding more sustainable returns. On the political front, local governments have significant influence over policies that affect local economic conditions. More autonomy allows these local governments to tailor their fiscal and economic policies to the needs of the people, while utilizing the resources entrusted to them more efficiently. As such, the results of this study reflect how local governments are enabling mechanisms that promote economic development, including local firm productivity, in one way or the other.

To further promote the vibrance of local economies through increased local firm productivity, local governments should digitalize business registration, provide financial support and incentives especially to start-up businesses to provide them a springboard for further growth and expansion, and invest in financial technology (access to capital), and capacity-building trainings to their constituents by inculcating them required knowledge and skills to innovate (e.g. financial literacy, investing strategies). Finally, autonomous LGUs should also foster inter-city or regional partnerships that promote trade among local firms. The creation of shared product, technology, and labor markets allows for the exchange of high-quality goods and services.

As for future researchers, further developments in this study may include extending the scope of the study to include municipalities in the Philippines, conducting the study on a longer time horizon, or redefining the constructs used in this study to incorporate a more refined measurement of local firm productivity, and size and growth of the local economy.

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