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Corruption, Growth, and Unemployment as Correlates of Entrepreneurial Activity in the Philippines: A Time-Series Analysis, 2006–2022

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Abstract

This study examined the relationship between entrepreneurial activity, measured by new business registrations, and three governance and macroeconomic indicators in the Philippines: control of corruption, GDP per capita growth, and the unemployment rate. Using a descriptive-correlational design with publicly available secondary data from the World Bank's World Development Indicators (WDI) database, the study analyzed an annual country-level time series covering 2006 to 2022 (N = 17). Pearson product-moment correlation coefficients showed that control of corruption was strongly and significantly positively correlated with new business registrations, $r(15) = .75$, $p < .001$, and that the unemployment rate was strongly and significantly negatively correlated, $r(15) = -.66$, $p = .004$. GDP per capita growth showed a moderate positive but statistically non-significant correlation, $r(15) = .40$, $p = .109$. These results indicate that institutional quality, specifically control of corruption, was the most robust and theoretically consistent correlate of formal entrepreneurial activity among the three variables examined. The negative unemployment relationship, while counterintuitive at first glance, is interpreted in light of prior literature indicating that joblessness disproportionately drives informal, unincorporated self-employment rather than formally registered business creation. The study is correlational in design and delimited to a single-country annual time series; its findings should not be interpreted causally. Recommendations for policy and for future research, including an extension to panel data across ASEAN economies, are discussed.

Keywords: *entrepreneurship; control of corruption; institutional quality; economic growth; unemployment; new business registration; Philippines*

1. Introduction

1.1 Background of the Study

Entrepreneurship is widely regarded as a driver of economic development, employment generation, and structural transformation, particularly in emerging economies, where formal business registration is often treated as a proxy indicator of a country's entrepreneurial dynamism. In the Philippine setting specifically, the formal registration of new businesses is one of the few consistently tracked national indicators of this dynamism over time. However, the rate at which individuals and firms choose to formalize business activity is shaped not only by market opportunity but also by the broader institutional environment in which they operate.

Among the institutional factors most frequently linked to entrepreneurial formalization is the quality of governance, and corruption in particular. A weak control of corruption is theorized to raise the transaction costs, uncertainty, and informal payments associated with registering and operating a formal business, thereby discouraging formalization and pushing activity into the informal sector (Boudreaux et al., 2017; Lecuna et al., 2020). This effect has also been found to be more pronounced in developing economies, where institutional voids and burdensome regulation amplify corruption's influence on entrepreneurs, than in developed economies (Chowdhury et al., 2018; Harraf et al., 2020). At the same time, entrepreneurial activity does not occur in isolation from the macroeconomic

cycle: economic growth expands market opportunity and access to capital and has been linked to higher rates of new business formation (Avlijaš, 2025; Fahim & Naamane, 2021), while labor market conditions such as unemployment can push individuals toward self-employment and new business formation out of necessity rather than opportunity (Fossen, 2020; Wosiek, 2023).

Despite the theoretical plausibility of these relationships, their empirical behavior in the Philippine context specifically, using consistently sourced, publicly available country-level indicators over a multi-year period, remains comparatively underexplored. Recent WDI-based studies of formal business entry in the Philippines and ASEAN have examined education, income, credit, structural conditions, and external shocks (A. G. Atento, Teodosio, et al., 2026; R. G. Atento, 2026; R. G. O. Atento, Quinto, et al., 2026), but have given less direct attention to governance quality alongside growth and unemployment. This study addresses that gap by examining how new business registration in the Philippines has moved together with control of corruption, GDP per capita growth, and unemployment between 2006 and 2022.

1.2 Statement of the Problem

This study sought to determine the relationship between entrepreneurial activity, as measured by new business registrations, and selected governance and macroeconomic indicators in the Philippines from 2006 to 2022. Specifically, it sought to answer the following research questions:

1. Is there a significant relationship between control of corruption and new business registrations in the Philippines?
2. Is there a significant relationship between GDP per capita growth and new business registrations in the Philippines?
3. Is there a significant relationship between the unemployment rate and new business registrations in the Philippines?

Correspondingly, the following null hypotheses were tested at the .05 level of significance:

$H0_1$: There is no significant relationship between control of corruption and new business registrations in the Philippines.

$H0_2$: There is no significant relationship between GDP per capita growth and new business registrations in the Philippines.

$H0_3$: There is no significant relationship between the unemployment rate and new business registrations in the Philippines.

1.3 Significance of the Study

The results of this study may benefit the following groups. Policymakers and anti-corruption bodies may draw on the findings to gauge whether governance reform efforts coincide with measurable movement in formal business formation. MSME support agencies and prospective entrepreneurs may gain a clearer, evidence-based picture of the macro-level conditions that have historically accompanied higher or lower rates of new business registration in the country. Finally, the academic community may benefit from a documented, replicable, and transparently sourced country-level dataset and analysis that can be extended, contested, or built upon in future research on entrepreneurship and institutional quality in the Philippines and in other developing economies.

1.4 Scope and Delimitation

This study is delimited to country-level, publicly available secondary data for the Philippines drawn from the World Bank's World Development Indicators (WDI) database. The analysis covers the period 2006 to 2022 (N = 17 annual observations), the years for which new business registration data were available in the WDI database for the Philippines; this is the binding constraint on the study window. The study examines three independent variables – control of corruption, GDP per capita growth, and unemployment rate – in relation to new business registrations. A fourth candidate variable, the Gini index, was considered but excluded because WDI coverage for the Philippines is limited to only six non-consecutive years within the study window. The study is correlational in design; it does not

establish causation, and its findings are limited to the relationships observed at the national, aggregate level and should not be generalized to firm-level or individual entrepreneurial behavior.

1.5 Definition of Terms

For clarity and consistency, the key variables of this study are operationally defined in Table 1.

Table 1. *Operational Definitions of Study Variables*

Term	Operational Definition
Entrepreneurial Activity	The number of new businesses registered in the Philippines in a given calendar year (World Bank WDI indicator IC.BUS.NREG). Used as the dependent variable in this study.
Control of Corruption	A Worldwide Governance Indicators (WGI) estimate of the extent to which public power is exercised for private gain and the extent of state capture by elites, expressed in standard normal units, approximately -2.5 (weak) to 2.5 (strong) (WDI indicator CC.EST).
GDP per Capita Growth	The annual percentage growth rate of gross domestic product per capita, based on constant local currency (WDI indicator NY.GDP.PCAP.KD.ZG).
Unemployment Rate	The share of the total labor force that is without work but available for and seeking employment, modeled ILO estimate (WDI indicator SL.UEM.TOTL.ZS).

2. Review Of Related Literature

This chapter synthesizes prior empirical research on the three relationships central to this study – between entrepreneurial activity and (a) control of corruption, (b) economic growth, and (c) unemployment – together with the broader institutional-quality literature that motivates these relationships. The chapter closes with a synthesis that identifies the specific gap this study addresses.

2.1 Corruption and Entrepreneurial Activity

A substantial body of empirical work links weaker control of corruption to lower rates of formal business creation. Using a global panel of 61 countries observed between 2007 and 2017, Park and Shin (2022) found that stronger control of corruption was significantly and positively associated with new firm entry and nascent entrepreneurship. Similar cross-national evidence positions corruption as an institutional tax that raises transaction costs and depresses aggregate business formation (Boudreaux et al., 2017; Lecuna et al., 2020). Country- and region-specific studies reinforce this pattern: in Swedish municipalities, higher perceived local corruption significantly reduced the likelihood that latent founders launched new enterprises (Wittberg et al., 2023), while corruption in United States public offices was found to diminish new establishment births, an effect compounded by excessive regulation (Chen & Cheng, 2019). A smaller strand of literature documents nonlinear, context-dependent dynamics: in some Mexican states, low-level bribery appeared to ease entry under severe bureaucratic friction before high corruption ultimately suppressed firm creation (Jauregui et al., 2020), and similar exceptions have been reported in emerging markets more broadly (Liu et al., 2018). On balance, however, the literature is more consistent than not: corruption predominantly discourages productive, formal entrepreneurial activity (Jiménez & Alon, 2018; Lecuna et al., 2020).

2.2 Corruption Effects in Developing versus Developed Economies

The strength of the corruption-entrepreneurship relationship also appears to vary by level of economic development. Chowdhury et al. (2018) found that corruption exerted a stronger effect on the quantity of new venture entries in developing economies, while its more damaging effect on venture quality and innovation was more

pronounced in developed economies. In developing-country settings specifically, institutional voids and burdensome regulation appear to amplify corruption's operational influence on entrepreneurs (Harraf et al., 2020), and bribery is more likely to be normalized as an informal mechanism for securing permits and bypassing bureaucratic bottlenecks (Wijayanti et al., 2022). This dynamic is also associated with a shift in the type of entrepreneurship observed: in higher-corruption, developing-economy contexts, activity tends to move toward unproductive rent-seeking and necessity-driven survival ventures rather than high-growth, opportunity-driven firms (Mollick & Sui, 2023; Tripopsakul & Puriwat, 2025). In the Philippines specifically, public distrust of government institutions has been widely expressed on grounds of corruption (Dela Cruz & Atento, 2026). As a middle-income, developing Southeast Asian economy, the Philippines sits within the institutional profile where these dynamics would be expected to apply most strongly, lending theoretical support to examining corruption's relationship with formal business registration in this specific national context.

2.3 Economic Growth and New Business Formation

Economic growth is similarly well established as a driver of new business formation, though the empirical picture is more time-sensitive than the corruption literature. Using a World Bank panel of 145 countries, Avlijaš (2025) found that higher GDP per capita was strongly associated with a higher rate of newly registered limited liability firms, and a dynamic system GMM analysis of 73 developing economies reached a similar conclusion, attributing the effect to growth in consumer purchasing power and market demand (Fahim & Naamane, 2021). Regional evidence from the Czech Republic likewise found that higher regional GDP per capita significantly promoted new business registrations (Dvouletý & Mares, 2016). Within ASEAN, a linear mixed-effects analysis of WDI panel data likewise found GDP per capita to be positively and significantly associated with new business density (R. G. Atento, 2026). This relationship is not, however, uniformly immediate: using a Vector Error Correction Model across Romanian development regions, Badulescu et al. (2025) found a robust long-term cointegrating relationship between GDP and business formation, but reported that the same relationship was statistically insignificant in the short run. The relationship can also reverse during downturns, when rising unemployment pushes some entrants toward necessity-driven, counter-cyclical business formation even as aggregate growth slows (Konon et al., 2018).

2.4 Unemployment and Necessity-Driven Entrepreneurship

Unemployment's relationship with entrepreneurship is best understood through the unemployment-push hypothesis, which holds that joblessness compels individuals without other income options into self-employment (Fossen, 2020; Wosiek, 2023). This push effect is well documented, but it is not evenly distributed across business types. Using a macro-level decomposition of United States labor market data, Fossen (2020) found that rising unemployment expanded entries into unincorporated self-employment but had no meaningful effect on entries into incorporated businesses. A related study similarly found that prolonged joblessness dampens employer-firm creation specifically, skewing new entries almost exclusively toward solo self-employment without staff (Wosiek, 2024). The severity of this push effect also intensifies with the duration of unemployment: each additional month of joblessness has been found to raise the probability of necessity-driven entry by roughly 1.7 percentage points (Murmann, 2024), while founders forced out of their home industries by extended unemployment often launch ventures outside their prior area of experience (Nikiforou et al., 2019). Institutional safety nets moderate this relationship, as more generous unemployment insurance has been found to delay or reduce entries into low-productivity, necessity-driven self-employment (Xu, 2022). Taken together, this literature suggests that a rise in unemployment need not translate into a corresponding rise in formally registered, incorporated new businesses; the entrepreneurial response to joblessness is concentrated instead in the unincorporated, informal segment of self-employment that formal business-registration statistics typically do not capture.

2.5 Institutional Quality and Formal Business Registration

Beyond corruption specifically, broader institutional quality has been linked to formal business registration rates. In a cross-national regression covering 126 countries, Abegaz et al. (2021) found that governance indicators collectively accounted for a substantial share of the variance in formal new-business registration density. More recent evidence points to digital governance and streamlined administrative procedures as significant predictors of business density and regulatory quality across countries (Buriak, 2026), while government effectiveness and regulatory quality have been identified among the strongest cross-national predictors of business start-up rates (Ndofirepi & Steyn, 2025). A thematic review of ASEAN+3 economies similarly links institutional quality and digital governance to the

business environment and to foreign direct investment attraction (R. G. O. Atento, Espelita, & Atento, 2026). Rule of law and legal protection form a related institutional channel: secure property rights and legal frameworks reduce the transaction costs and uncertainty associated with formal registration (Agostino et al., 2019), and short-term deteriorations in the rule of law have been found to depress entrepreneurial entry more sharply than equivalent improvements stimulate it (Mickiewicz et al., 2021). Collectively, this literature situates control of corruption as one specific, well-evidenced component of a broader institutional-quality construct that shapes the decision to register a business formally rather than to operate informally.

2.6 Synthesis and Research Gap

Across these five bodies of literature, three patterns are directly relevant to the present study. First, the relationship between control of corruption and new business registration is one of the more consistently documented findings in the institutional-entrepreneurship literature, and it is expected to hold in a developing, Southeast Asian economy such as the Philippines (Chowdhury et al., 2018; Harraf et al., 2020; Park & Shin, 2022). Second, GDP growth is positively associated with new business formation in most cross-national and regional studies, but this relationship can be statistically weak or insignificant over short annual windows even where a longer-run relationship exists (Badulescu et al., 2025), a consideration directly relevant to a study working with an annual country series. Third, and most important for interpreting this study's results, the unemployment-entrepreneurship literature indicates that necessity-driven entrepreneurship concentrates in unincorporated, informal self-employment rather than in formally registered, incorporated businesses (Fossen, 2020; Wosiek, 2024); a rise in unemployment is therefore not guaranteed, and by some evidence is not expected, to correspond with a rise in the specific formal registration measure used in this study. What remains comparatively less documented is how these three relationships behave together, using a single, consistently sourced set of country-level indicators, specifically for the Philippines over a multi-year period. This study addresses that specific gap.

3. Methodology

3.1 Research Design

This study employed a quantitative, descriptive-correlational research design using secondary, country-level annual time-series data. The design is appropriate for determining the strength and direction of association between entrepreneurial activity and selected governance and macroeconomic indicators, without manipulating any variable or assigning treatment conditions. Comparable country-level correlational designs using WDI time-series indicators and Pearson correlation analysis have been applied to macroeconomic and labor-market data in ASEAN economies, including the Philippines (Quinto & Atento, 2025). Consistent with this design, the results reported in Chapter 4 describe association rather than causation.

3.2 Data Source

All data were obtained from the World Bank's World Development Indicators (WDI) database, a publicly available, regularly updated repository of internationally comparable country-level development indicators. Data for the Philippines were extracted from the WDI bulk CSV file and compiled into a single annual dataset for analysis. No primary data collection, survey administration, or human participant involvement was undertaken.

3.3 Study Period and Unit of Analysis

The unit of analysis is the country-year, restricted to the Philippines. The study covers 2006 to 2022 (N = 17 annual observations). This window was determined by the availability of the dependent variable, new business registrations, which is the WDI series with the narrowest coverage among the variables considered; all other series were then matched to the same 17 years to preserve a balanced, complete-case dataset. The same 2006–2022 window, bounded by the WDI availability of business registration data, has been used in other Philippine time-series studies of formal enterprise activity (Menez & Atento, 2026; R. G. O. Atento, Quinto, et al., 2026).

3.4 Variables and Operational Definitions

Table 2 presents the study variables together with their WDI indicator codes, operational definitions, and role in the analysis.

Table 2. *Study Variables, WDI Indicator Codes, and Operational Definitions*

Variable	WDI Code	Operational Definition	Role
New Businesses Registered	IC.BUS.NREG	Number of new limited liability corporations registered in the calendar year.	Dependent
Control of Corruption	CC.EST	WGI aggregate estimate of governance quality relating to corruption, in standard normal units.	Independent
GDP per Capita Growth	NY.GDP.PCAP.KD.ZG	Annual % growth of GDP per capita, constant local currency.	Independent
Unemployment Rate	SL.UEM.TOTL.ZS	% of total labor force without work but seeking employment (modeled ILO estimate).	Independent

3.5 Data Analysis

Descriptive statistics (mean, standard deviation, minimum, and maximum) were computed for all four variables. To test the study's null hypotheses, Pearson product-moment correlation coefficients were computed between new business registrations and each of the three independent variables, using a two-tailed test of significance at $\alpha = .05$. Analyses were conducted using standard statistical computing routines (Python, SciPy statistical functions). Full results are presented in Chapter 4.

3.6 Ethical Considerations

This study relied exclusively on publicly available, aggregate, country-level secondary data published by the World Bank. No human respondents, primary surveys, or personally identifiable information were involved, and no informed consent or institutional ethics review was therefore required. The data source is properly attributed throughout this paper, and no data values were altered, estimated, or fabricated; where a WDI series lacked coverage for a given year, the observation was treated as missing rather than imputed.

3.7 Methodological Limitations

Three design-level limitations should be noted at the outset and are revisited in light of the results in Chapter 4. First, the analysis is a single-country time series with a relatively small number of annual observations ($N = 17$), which limits statistical power. Second, the correlational design does not support causal inference between any independent variable and new business registrations. Third, new business registration counts are an administrative proxy for entrepreneurial activity and may also reflect regulatory or reporting changes independent of underlying entrepreneurial behavior.

4. Results And Discussion

This chapter presents the results of the analysis conducted to examine the relationship between entrepreneurial activity and selected governance and macroeconomic indicators in the Philippines. The chapter is organized as follows: presentation of the data source and variables, descriptive statistics of the study variables, correlational analysis addressing the study's research questions, discussion of the findings, and a summary of the results together with the limitations of the analysis.

4.1 Data Source and Study Variables

Data were drawn from the World Bank's World Development Indicators (WDI) database for the Philippines. The dependent variable, entrepreneurial activity, was operationalized as the number of new businesses registered annually. The independent variables were institutional quality, measured through the Worldwide Governance Indicators' Control of Corruption estimate (higher values indicate stronger control of corruption, i.e., a cleaner governance environment); economic growth, measured through GDP per capita growth (annual percentage); and labor market conditions, measured through the total unemployment rate (percentage of the total labor force, modeled ILO estimate). The analysis covers the period 2006 to 2022 (n = 17 annual observations), the years for which new business registration data were available for the Philippines in the WDI database. A fourth candidate indicator, the Gini index, was considered but excluded from the analysis; WDI coverage for this indicator is limited to six non-consecutive years within the study window (2006, 2009, 2012, 2015, 2018, and 2021), which was judged insufficient for a reliable estimate over the same period.

4.2 Descriptive Statistics

Table 3 presents the descriptive statistics for the four study variables across the 2006-2022 period.

Table 3. *Descriptive Statistics of Study Variables (N = 17)*

Variable	M	SD	Min	Max
New Businesses Registered (count)	17,981.47	4,566.31	11,435	25,421
Control of Corruption (WGI Estimate)	-0.61	0.15	-0.89	-0.38
GDP per Capita Growth (annual %)	3.44	3.97	-10.55	6.77
Unemployment Rate (% of labor force)	3.19	0.58	2.24	4.05

Note. M = mean; SD = standard deviation. Data source: World Bank, World Development Indicators.

New business registrations ranged from 11,435 (2009) to 25,421 (2022), with a mean of 17,981.47 (SD = 4,566.31), indicating a generally upward trajectory with year-to-year variation. The Control of Corruption estimate remained negative throughout the period (M = -0.61, SD = 0.15), indicating that the Philippines was consistently assessed below the global mean on this dimension of governance, with limited movement across the years observed. This is consistent with comparative evidence that Philippine governance indicators have remained persistently fragile relative to regional peers (R. G. Atento, 2025). GDP per capita growth averaged 3.44% (SD = 3.97) but ranged widely, from a contraction of -10.55% in 2020 -- reflecting the COVID-19 pandemic -- to a high of 6.77% in 2022. The unemployment rate was comparatively stable, averaging 3.19% (SD = 0.58) and ranging from 2.24% to 4.05%.

4.3 Correlational Analysis

Pearson product-moment correlation coefficients were computed to determine the strength and direction of the relationship between new business registrations and each of the three independent variables. Results are summarized in Table 4.

Table 4. *Pearson Correlations Between New Business Registrations and Selected Indicators (N = 17)*

Indicator	r	p	Interpretation
Control of Corruption (Estimate)	.75	<.001*	Strong positive; significant
GDP per Capita Growth (%)	.40	.109	Moderate positive; not significant
Unemployment Rate (%)	-.66	.004*	Strong negative; significant

Note. *p < .05. Strength of correlation interpreted following conventional guidelines (< .20 negligible, .20-.39 weak, .40-.59 moderate, .60-.79 strong, .80-1.0 very strong).

Control of Corruption was significantly and strongly correlated with new business registrations, r(15) = .75, p < .001. Years in which the Philippines' governance environment was assessed as relatively less corrupt tended to coincide with a higher volume of new business registrations, and the null hypothesis of no relationship is rejected for this indicator.

GDP per capita growth showed a moderate positive correlation with new business registrations, r(15) = .40, but this relationship did not reach statistical significance at the conventional .05 level, p = .109. The null hypothesis of no relationship is therefore not rejected for this indicator; the observed association should be treated as suggestive rather than confirmed, particularly given the limited statistical power associated with N = 17.

Unemployment was significantly and strongly, negatively correlated with new business registrations, r(15) = -.66, p = .004. Years with higher unemployment tended to coincide with fewer new business registrations, and the null hypothesis of no relationship is rejected for this indicator.

4.4 Discussion of Findings

The strong, significant positive relationship between control of corruption and new business registrations is consistent with the broader institutional-economics premise that a cleaner, more predictable governance environment lowers the transaction costs and uncertainty associated with formalizing a business (Boudreaux et al., 2017; Lecuna et al., 2020; Park & Shin, 2022). Within the Philippine context specifically, this finding would suggest that periods of perceived improvement in anti-corruption governance moved together with periods of higher formal business formation, though the correlational design of this chapter does not establish that one caused the other.

At first glance, the negative relationship between unemployment and new business registrations appears to run counter to the unemployment-push hypothesis, under which rising joblessness is expected to push individuals toward self-employment (Fossen, 2020; Wosiek, 2023). However, the literature indicates that this push effect is concentrated almost entirely in unincorporated, solo self-employment rather than in formally registered, incorporated businesses; unemployment has been found to have little to no effect on incorporated business entries specifically, and prolonged joblessness has been shown to dampen employer-firm creation even as it expands informal self-employment (Fossen, 2020; Wosiek, 2024). Because new business registrations, the dependent variable in this study, capture formal, typically incorporated entities, the negative correlation observed here is plausibly consistent with this literature rather than contradicting it: rising unemployment in the Philippines may be channeling displaced workers into informal or unincorporated self-employment that this indicator does not capture, while the same weaker labor market conditions simultaneously discourage the capital, credit access, and consumer demand needed to formally register a new enterprise. Capital market depth and investment flows have also been examined as structural enablers of entrepreneurial activity in the Philippines and ASEAN (Chen et al., 2026), and in an ASEAN panel, unemployment was not significantly associated with new business density once structural factors such as development level and banking-sector credit depth were accounted for (R. G. Atento, 2026).

The non-significant result for GDP per capita growth is notable given that a moderate positive correlation (r = .40) was still observed. One plausible explanation is that annual growth captures short-run cyclical movement -- and is itself distorted in this series by the 2020 pandemic contraction -- whereas business registration may respond more to the cumulative or structural governance and labor-market environment than to a single year's growth rate. This pattern is broadly consistent with time-series evidence that GDP and business formation can be cointegrated over the long run while remaining statistically insignificant over short annual horizons (Badulescu et al., 2025). Philippine-specific ARDL evidence similarly shows the association between GDP per capita and formal business entry changing sign across lag structures (A. G. Atento, Teodosio, et al., 2026), and a separate Philippine time-series analysis covering the same 2006–2022 window found levels-based specifications to be confounded by shared secular trends, with clearer relationships emerging only in first differences (R. G. O. Atento, Quinto, et al., 2026). The relationship should be revisited with a longer time series or an additional lag structure before being treated as a substantive conclusion.

4.5 Summary and Limitations

Overall, the results indicate that institutional quality (control of corruption) and labor market conditions (unemployment) were significantly associated with entrepreneurial activity, as proxied by new business registrations, in the Philippines from 2006 to 2022, while the relationship with short-run GDP per capita growth was not statistically significant. Several limitations should be considered when interpreting these results. First, the analysis is based on a single-country annual time series of N = 17, which is a small sample for correlational inference and yields limited statistical power, particularly for the GDP per capita growth relationship. Second, the design is correlational rather than causal; no claim of directionality or causation is made or implied by these results. Third, new business registrations are an administrative proxy for entrepreneurial activity and may be influenced by regulatory or reporting changes independent of underlying entrepreneurial intent. Fourth, the 2020 observation reflects a pandemic-driven shock to GDP per capita growth that may disproportionately influence that variable's correlation estimate. Comparable Philippine WDI time-series studies have reported a large negative 2020 shock to formal firm entry (Menez & Atento, 2026) and have explicitly isolated the COVID-19 disruption when modeling other national outcomes (Refozar et al., 2026). Finally, the Gini index was excluded from this chapter due to insufficient annual coverage in the source dataset and is noted here as a direction for a future, separately-sourced analysis.

5. Conclusions And Recommendations

5.1 Summary of Findings

This study examined the relationship between entrepreneurial activity, measured through new business registrations, and three governance and macroeconomic indicators in the Philippines from 2006 to 2022: control of corruption, GDP per capita growth, and the unemployment rate. Descriptive statistics showed a generally upward trajectory in new business registrations over the period, alongside a consistently negative Control of Corruption estimate, volatile GDP per capita growth (including a pandemic-driven contraction in 2020), and a comparatively stable unemployment rate. Correlational analysis found that control of corruption ($r = .75$, $p < .001$) and unemployment ($r = -.66$, $p = .004$) were both significantly related to new business registrations, while GDP per capita growth ($r = .40$, $p = .109$) was not significant at the conventional .05 level.

5.2 Conclusions

Based on the findings, the following conclusions are drawn with respect to the study's three null hypotheses.

1. $H0_1$ is rejected. Control of corruption was found to have a strong, statistically significant positive relationship with new business registrations in the Philippines. This is consistent with the broader institutional-entrepreneurship literature, which consistently links stronger control of corruption to higher rates of formal business creation (Boudreaux et al., 2017; Lecuna et al., 2020; Park & Shin, 2022). Of the three variables examined, control of corruption showed both the strongest and the most theoretically consistent relationship with entrepreneurial activity.
2. $H0_2$ is not rejected. GDP per capita growth showed a moderate positive correlation with new business registrations, but this relationship did not reach statistical significance within the 17-year annual window studied. This is plausible in light of time-series evidence that GDP and business formation can be cointegrated over the long run while remaining statistically insignificant over short annual horizons (Badulescu et al., 2025); it should not be read as evidence that economic growth is unrelated to entrepreneurial activity in the Philippines, only that this particular annual specification did not detect a significant relationship.
3. $H0_3$ is rejected. Unemployment was found to have a strong, statistically significant negative relationship with new business registrations. Rather than contradicting the unemployment-push hypothesis, this finding is plausibly consistent with literature showing that joblessness pushes individuals toward unincorporated, informal self-employment rather than toward formally registered, incorporated businesses (Fossen, 2020; Wosiek, 2024) – the specific form of entrepreneurial activity that this study's dependent variable captures.

Taken together, these conclusions suggest that among the three factors examined, institutional quality – specifically, control of corruption – is the most robust correlate of formal entrepreneurial activity in the Philippines, while the macroeconomic and labor-market indicators considered here relate to formal business registration in more conditional, indicator-specific ways.

5.3 Recommendations

Based on the conclusions above, the following recommendations are offered.

1. To national anti-corruption bodies and governance reform agencies: given the strong, significant relationship observed between control of corruption and new business registrations, continued investment in anti-corruption and governance-quality initiatives should be considered a channel that plausibly supports, and does not merely coincide with, formal entrepreneurial activity. Complementary institutional-quality levers documented in the literature – rule of law, government effectiveness, and digital or e-government reforms – may offer related avenues worth examining alongside corruption control specifically (Abegaz et al., 2021; Agostino et al., 2019; Buriak, 2026).
2. To MSME support agencies and business registration authorities: because the relationship between economic growth and new business registrations was not statistically significant in this annual specification, growth-oriented support programs should not be assumed, on their own, to reliably translate into higher formal registration rates; complementary measures that directly reduce registration friction and cost may be more consistently effective. Philippine evidence identifies funding facilitation as a weak point in the country's entrepreneurial ecosystem (R. G. Atento & Espelita, 2026), suggesting that registration-cost measures may be usefully paired with improved access to start-up finance.
3. To labor and social welfare agencies: to the extent that unemployment channels displaced workers into informal or unincorporated self-employment rather than formally registered enterprises (Fossen, 2020; Wosiek, 2024; Xu, 2022), programs that support the transition from informal self-employment toward formal registration during periods of elevated unemployment may help convert an existing informal response into a formally captured, taxable, and more easily supported one. Policy analysis of Philippine crisis-response instruments similarly distinguishes support for informally employed populations from MSME-directed credit and recommends integrating formalization incentives into enterprise support (A. G. Atento, Quinto, & Atento, 2026).

5.4 Recommendations for Future Research

Several directions for future research follow directly from this study's design and limitations.

1. Extend the annual time series as additional years of new business registration data become available for the Philippines, to increase statistical power beyond the current N = 17.
2. Adopt a panel design across ASEAN or other developing economies, which would restore the option of fixed-effects estimation and substantially increase the effective sample size relative to a single-country time series.
3. Incorporate additional institutional indicators available in the same World Bank data source – including Government Effectiveness, Rule of Law, Regulatory Quality, and Voice and Accountability – to test whether the relationship documented here is specific to corruption control or reflects a broader institutional-quality construct.
4. Where available, incorporate direct measures of informal or unincorporated self-employment alongside formal business registration, to directly test this study's proposed explanation for the negative unemployment relationship rather than inferring it from the literature.
5. Apply time-series techniques suited to small-N, cointegration-sensitive data – such as a Vector Error Correction Model or an autoregressive distributed lag approach – particularly for the GDP per capita growth relationship, which theory suggests may operate over a longer horizon than a single year. ARDL bounds testing and HAC-robust time-series regression have already been applied to small-sample Philippine WDI series and offer workable templates (A. G. Atento, Teodosio, et al., 2026; R. G. Atento, Feng, & Tolentino, 2026).
6. Where feasible, pursue causal identification strategies – such as difference-in-differences around specific anti-corruption reforms or the use of instrumental variables – to move beyond the purely correlational evidence presented in this study.

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