

# Understanding economic contributions of MSMEs among Philippine Regions

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## Abstract

The researchers explored the conditioning effect of number of enterprises together with employment generation led by MSMEs towards Regional Gross Domestic Product (RGDP) of the Philippines through panel regression analysis from 2018 to 2021. Initially, it revealed that RGDP, number of MSMEs as well as its employment generated decreased from 2019 to 2020 and increased from 2020 to 2021. Metro Manila followed by Region IV-A and Region 3 where topping RGDP values, number of MSMEs and its employment generated. Moreover, corrected PLS revealed that the number of enterprises and the MSMEs' employment generation conditions RGDP. Hence, the researchers recommend focusing on the least MSMEs growth in the region particularly in Mindanao Island to foster equitable MSME-induced growth in the country.

**Keywords:** MSMEs, regional gross domestic product, region, employment, Philippines.

**JEL Classification Codes:** L52, L53, O10.

## 1.0 Introduction

Micro, Small, and Medium Enterprises (MSMEs) is served as main economic contributor in the Philippines and in the Southeast Asian Region (Tadeo & Mendoza, 2022; Tadeo & Solis, 2022). They help to reduce poverty by giving job opportunities in the nation's growing workforce and stimulating economic growth in rural regions (Senate Economic Planning Office, 2012). In addition, MSMEs are the fundamental foundation of the Philippine Economic-system, given that these enterprises are important catalyst of economic movements, growth and development; specifically in fostering progress, income, and employment. The government's implementation of economic strategy indicates that it recognizes the importance of MSMEs in our nation, which certainly contributes to the nation's output and increasing workforce (University of the Philippines Institute of Small-Scale industries, 2020). As stated by the Department of Trade and Industry (2021) there are 1,080,810 business enterprises operating in the Philippines and 99.58% of these are MSMEs while 0.42% were large businesses. Microenterprises comprises the 90.54% of all business with a total of 8.63% and medium enterprises with 0.41%. Moreover, Metro Manila has the most MSMEs with a total of 18.46%, followed by Region IV-A with 14.81%, Region 3 with 12.79%, Region 7 with 7.22% lastly, Region 6 with a total of 6.83% MSMEs. These locations constitute for about 60.11% of the total MSMEs in the Philippines. These enterprises were concentrated in regions based on economic activity and population size. Furthermore, MSMEs contribute 25% of total revenue from exports in the country. Likewise, it was projected that 60% of all exporters in the country fall into the MSME.

Gross Domestic Product calculates the value of output produced in an entire country within a specific segment of time (Callen, 2019), especially the domestic production and foreign trade balance (Tejswini, 2023). According to the Tan (2022), GDP has increased by 5.6% in 2021, indicating the initial stages of an economic recovery. Moreover, MSMEs contribute to the country's GDP with a total of 40% (United Nations Philippines, 2020). However, related studies found that the contribution of enterprises to the national output of the Philippines does not have an improvement in the consecutive year from 2018 to 2021 since there are regions in the Philippines that still in the least MSMEs growth, particularly in Mindanao Island. The status quo of these enterprises has changed brought by pandemic (Tadeo & Muralla, 2022; Tadeo & Mojica, 2022) and varied market opportunities (Mendoza et.al., 2023) and challenges (Dagpin, et.al., 2022).

Thus, the researchers aim to examine the effect of the total number of enterprises and total employment generated by MSMEs to RGDP from 2018 to 2021.

## **1.1 Objectives of the Study**

In general, the researchers attempted to explore the behavioral relationship and effect of the aggregate number of enterprises and total employment to the RGDP of the Philippines from 2018 to 2021.

1. Describe the trend of Regional Gross Domestic Product on the total number of Micro, Small, and Medium Enterprises and total employment generated by Micro, Small, and Medium Enterprises from 2018 to 2021.
2. Describe how does the total number of Micro, Small, and Medium Enterprises and total number of employment generated conditions the Regional Gross Domestic Product from 2018 to 2021.
3. Synthesize policy recommendations to augment Regional Gross Domestic Product growth in the region through Micro, Small, and Medium Enterprise promotions.

## **2.0 Literature Review**

This study utilized various studies that enabled the researchers to augment information regarding MSMEs literature, employment generation and output segments of the Philippines' different region.

### **2.1 MSMEs Productivity**

The MSME policies were implemented in the Philippines to sustain productivity and entrepreneurship through the years. However, even though policies are being implemented there are still several challenges that impede MSMEs and entrepreneurs' productivity. It was found that external factors affect productivity as well as entrepreneurship pertaining to the high cost of conducting business and establishing a new business, regulatory difficulties that reduce market conditions, high trade costs which limit the MSMEs opportunities to wider their markets. Moreover, Internal factors including skills, funding, and capabilities also affect productivity growth (Garcia, et al. 2019). The Philippines has several programs and policies for MSMEs. These programs and sectors supporting MSMEs were neglected and had low funding, which caused low productivity and slow growth of the economy. Department of Trade and Industry (DTI) has programs that supports MSMEs whose limited budget resulted in the market concept that holds the government, should not operate as a business or practitioner, according to a former National Economic and Development Authority (NEDA) official, as stated by Raquiza (2021). In contrast, there are much empirical data from the experiences of other nations where governments significantly increased funding to boost the productivity and innovation skills of MSMEs under its policy direction, which enabled them to lower levels of extreme and absolute poverty and societal inequality and raise the living standards of the general population. Moreover, Banting (2020) revealed that the enterprise has low productivity

measurements to keep track of labor, material, and production demands, leading to cancelled orders, delayed deliveries, and uncontrolled production costs. MSMEs were seen as the foundation of the Philippine economy and have been the topic of great interest from numerous governmental institutions and business organizations. MSMEs were known as the key stimuli of economic growth and change. However, the indicated economic performance of MSMEs has a low level of productivity (Campos, 2021). Surya et al. (2021) stated that there are ways to increase the productivity of MSMEs and to be able to sustain their stability as well as existence. This includes the support of enterprise capital, specifically through the provision of low rates of interest and just tax values, enriching operation capacity through supporting production mechanism which also includes human resources through training in terms of management & packaging by employing environmental friendly technology, enhancing production quality through tiered training programs to boost quality in product design and product forms in accordance with corporate quality standards, enterprise feasibility training to achieve assistance from financial institutions, production business management training to improve product competitiveness, the preservation and expanding of networks through a startup-based business cooperation patterns based on identified demands of consumers and possible markets, and financial management safety net with a new schemes of financial administration arrangement. Through exceptional products that are important as well as having a high economic value, these eight activities will generate economic spurring growth for businesses and boost regional competitiveness.

## **2.2 MSMEs Contribution to the Economy**

The Association of Southeast Asian Nations (2020) stated that there are 70 million Micro, Small, and Medium Enterprises in Southeast Asian Region. They contribute 85% to work force employment, 44.8% to the national output, and 18% to exports, regionally. The statistics showed that MSMEs play important part in national, economic and social development, enhancing value-added activities, industry, innovation, and nation-inclusive growth through increased job creation and their extensive presence in various regions. MSMEs serve as the foundation of ASEAN and are vital to attaining sustainable economic growth as well as narrowing the economic gap. The MSMEs contribute to the Philippine economy, 99.5% to commercial establishment, 63% to employment rate of the Philippine workforce, and about 40% to the country's GDP. Moreover, as reference to the data presented by the Philippine Statistics Authority (PSA), MSMEs has been contributed to poverty information reduction (United Nations Development Programme, 2020). However, as stated by Cammayo and Perez (2021), MSMEs contribute 99.56% to the Philippine economy, 25% to exports and 35% in Gross Value Added (GVA). While, in Indonesia Micro-enterprises contribute 61.05%, while Small-enterprises have 16.20%, and lastly Medium-enterprises having 22.75% of total GDP (Suhaili, 2019). Weldelessie et al. (2019), stated that MSMEs contribute more value-added

per worker. As a result, the industry consumes a large workforce and may be operational with minimal initial capital and skills. The study of Adviento et al. (2022) showed that the MSMEs have a relationship with three variables that are important focus in the Philippine Economy including Employment generation, Income inequality, and Poverty. The MSMEs significantly contribute to employment generation both locally and internationally through their ability to generate work opportunities and it has been empirically shown that the work force employment rate continued to rise as MSMEs booms. Additionally, MSMEs can contribute to income inequality by enhancing their productivity to eliminate wage inequality. Through income generation, providing more secure work opportunities, diversifying livelihood opportunities as well as providing other social benefits to the poor, MSMEs can directly contribute to poverty alleviation. Likewise, the purpose of MSMEs, as regards the three variables affecting growth sustainable and national economy development, is still not examined in the Philippines.

### **2.3 MSMEs Regional Plan**

The Micro, Small and Medium Enterprise Development (MSMED) council (2018), explained that the National Development Plan (NDP) from 2017-2022 for (MSME) is the sector-specific plan for the expansion and growth of the MSME sector. It was created after thorough discussions with numerous stakeholders from the government, various sectors of educational institutions, and different private sector. It supports the objective of the government of increasing employment, entrepreneurial activity, and livelihood of the Philippine Development Plan (PDP) of 2017–2022 which is the "Trabaho, Negosyo, Kabuhayan" translated to "Malasakit", "Pagbabago", and "Patuloy na Pag-unlad". The MSMED Council (2019) stated that the plan seeks innovativeness, adaptive, achievable, and globally competitive MSMEs which act as major forces behind inclusive economic growth in the country. It has determined three key priority areas, particularly the business capacity, business environment, and commercial opportunities, with five main strategic objectives which include the improved economic climate, improved opportunities for finance, increased leadership and workforce capacities, optimized reach to science, technology and concrete innovation, and expanded access to markets. Moreover, the business environment focused on improving company regulation standards and processes while also maximizing links to finance; business capacity aims to strengthen the growth of human capital and enhance the innovativeness and proficiency of MSMEs to words technology to reinvent and establish enterprises and new business and economic models; as well as opportunities seek to extend exposure to markets (Garcia et al., 2019). According to One Planet Network (2022), Green economic development program seeks to alleviate the increasing concern of micro, small, and medium-sized businesses (MSMEs) of the implications of climate change. It allows MSMEs to embrace environmentally friendly and procedures and practices to reduce costs and create eco-friendly goods and services while becoming prepared for the effects of climate change. It also outlines best practices for greening

the operation of the business, goods, and services concerning the seven environmental hotspots, including the administration of energy efficiency and renewable energy, solid and toxic waste management, waste disposal and water management, management of transportation, handling of local supplies, raw material management, along with management of natural resources. Sobir (2020) showed that MSMEs would help in the fulfillment of goals of the Sustainable Development Goals (SDG). The SDG aims are ambitious and seek significant changes to public and private endeavors. This change involves adopting new business models, introducing new innovations and technology, and conducting business in an approach that is more ethically and sustainably driven. New business potentials are made open by this procedure for the private sector and MSMEs in particular.

#### **2.4 The future role of MSMEs in economic growth: a post-pandemic scenario**

MSMEs in the Philippines are now critical to sustaining the country's economic growth, which includes creating jobs and fostering innovation. MSMEs also significantly contribute to regional economic activity, and small businesses have become ambassadors for the country, representing local hard work and talent. MSMEs contribute to understanding the important of MSMEs in stabilizing the market by providing collateral, increasing productivity, hiring more workers, and providing specific loans or grants (Tecson, 2022). According to the study by Kaftan et al. (2023), enterprises and business person need to use the opportunities brought by industrial transformation, promote global innovation, and focus on sustainable development. Enterprises need to build a stronger business community for a shared future, create more dynamism to drive economic growth, and establish more balanced international relations to strengthen the role of SMEs in this upswing. The results show that innovations and digitization, such as smart metering or the Internet of Things, will be SMEs' main drivers of sustainable economies in the post-pandemic times. The Philippines can incorporate green in stimulus packages or programs, such as short-term stimulus for MSMEs, with wage subsidies enlarged to stimulate the quicker adoption of sustainable solutions and technologies. Furthermore, the Philippines has to identify and promote in green growth sectors, including productive and regenerative agriculture, sustainable urban development and transportation, clean energy transition, circular economy, and healthy and productive oceans. Where addressing the problem is an important objective, investment opportunities in waste management and ecosystem conservation must be pursued (Navarro et al., 2021). According to DESA (2020), more than 70% of the total workforce in developing countries is believed to mobilize in the informal economy through self-employment or in enterprises that are not officially registered businesses. Therefore, MSMEs are often concentrated in low-skilled and labor-intensive industries such as light manufacturing and services. Nonetheless, jobs provided by MSMEs may pay less and be less secure than jobs provided by larger enterprises. Not all MSMEs are

continuously innovative, new and small businesses are frequently the force behind crucial economic growth innovations.

### 3.0 Methodology

#### 3.1 Research Design

This study utilized a descriptive causal research design as well as regression analysis PLS with distribution lagged model to understand the behavioral characteristics of the factors of number of MSMEs and the employment generation by MSMEs in the regional gross domestic product. Regression model analysis was utilized to understand the contribution of these enterprises and employment generation by the MSMEs towards the regional gross domestic product of the Philippines.

#### 3.2 Sources of Data

The researchers employed the use of secondary data from Philippine Statistics Authority (PSA), which obtained the data needed for the MSMEs' total number and the total employment generated by MSMEs. Also, related studies utilized to strengthen the result of the conclusion of the study and were obtained from several sources, such as research publication, studies, journals, literatures, and articles.

#### 3.3 Statement of Hypothesis

$H_0$  = There is no significant difference between the total number of MSMEs and the regional gross domestic product (RGDP) of the Philippines.

$H_0$  = There is no significant difference between the total number of employment generated by MSMEs and the regional gross domestic product (RGDP) of the Philippines.

#### 3.4 Statistical Treatment

**Table 1. Statistical test (Summary)**

<b>STATISTICAL REGRESSION ASSUMPTION TEST</b>	<b>PURPOSE</b>	<b>RESULTS</b>
Adjusted R-squared (Goodness of Fit)	Coefficient determination	Significant
F-test/ ANOVA	Equality of variance	Significant
Durbin – Watson Statistics	Autocorrelation	No autocorrelation
Jarque – Bera Test of Normality	Normality	Normal distribution

### 3.5 Regression Model

The study employed a panel regression analysis using pooled least squares with lag value.

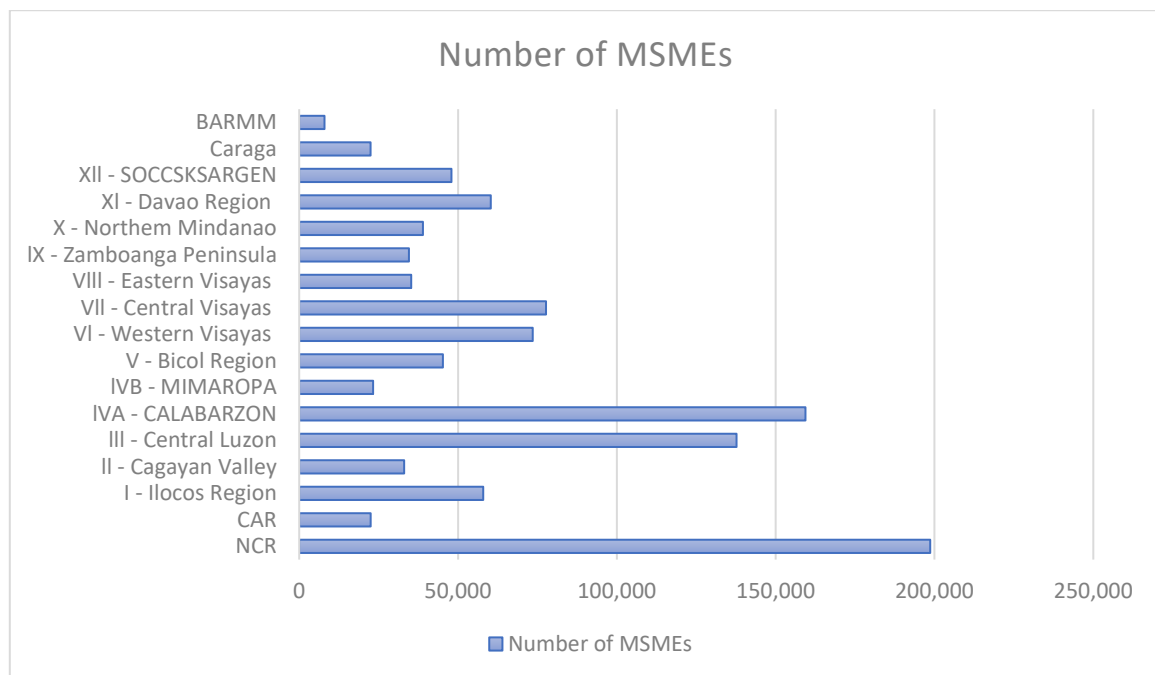
$$GDP_{1t} = \beta_0 + \sum_{i=0}^k \beta_{1it} TOM_{t-k} + \sum_{i=0}^k \beta_{2it} TEM_{t-k} + \mu$$

Whereas:

- TEM – Total Employee
- TOM – Total number of Enterprise
- $\beta_1 \beta_2$  – Parameters
- i – industries
- t – time
- k – lag
- $\beta_0$  – intercept
- $\mu$  – error term

## 4.0 Result and Discussion

### 4.1 Descriptive Analysis



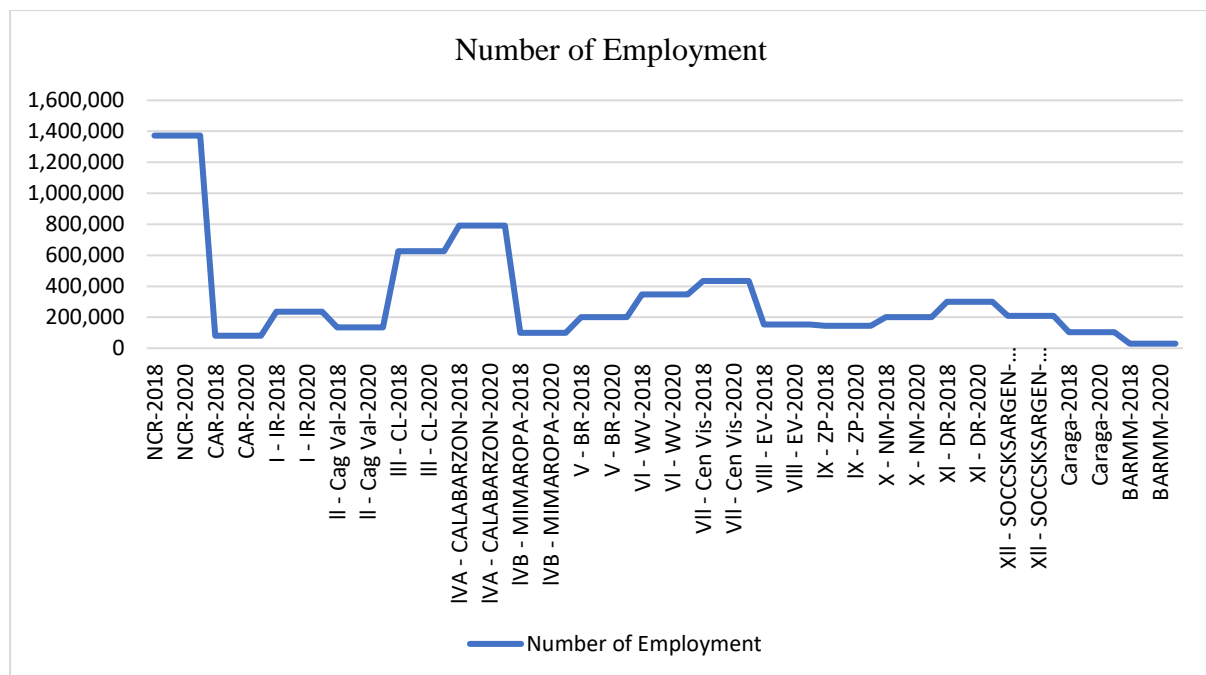
**Figure 1.** Total number of MSMEs per region in the Philippines

#### 4.1.1 Total number of MSMEs per region

The bar graph shows the total number of MSMEs in the countries per region. The data revealed that National Capital Region (NCR) has a total of 198,652 MSMEs, thus making it the top region in the Philippines with the highest number of MSMEs, followed by CALABARZON (159,377), Central Luzon (137,677), Central Visayas (77,698), and Western Visayas (73,515).



The data also showcases that the total number of MSMEs per region fluctuated from 2018 to 2021. Moreover, Rivera et al. (2020) discovered that the National Capital Region intervened and funded 40% of micro, 44% of small and 16% of medium enterprises. Furthermore, the findings of the study by Francisco et al. (2020) corroborated the study's findings, which claimed that an enterprise could remain resilient in the face of quarantine restrictions because a firm innovated approaches, they used, such as employing e-commerce solutions prior to COVID-19. Because of the significant increase in demand from families and enterprises for critical output, as well as healthcare, some groups of MSMEs with the average of 9.30% which showed stronger business climate before the pandemic, particularly in microenterprises with 14.5%, and agriculture with 20.7% (Shinozaki and Rao, 2021).



**Figure 2.** Total number of employment generated by MSMEs per region in the Philippines

#### 4.1.2 Total number of employment per region

The line graph presents the total employment generated by MSMEs in the Philippines per region. The data reveals that the region of NCR reported having the highest value of workforce employment produced by MSMEs with 1,372,407 total employments, followed by Calabarzon (792,068), Central Luzon (625,619), Central Visayas (433,068), and Western Visayas (347,488). Moreover, the study by Adviento et al. (2022) stated that MSMEs have direct and positive contribution to employment in both international and local setting since it provides job opportunities. Thus, the result empirically proved in the Philippines that the employment rates, over time continues to grow as the MSMEs become a bundant. Furthermore, according to Tecson and Vigonte's (2022) report, Philippine MSMEs employed 5,380,815, representing 62.66 percent of total employment. Wholesale and retail trade employed the most MSMEs (1,941,115), followed by hospitality and food service activities (775,120), manufacturing firms

(732,030), banking and insurance activities (306,283), and educational industry (295,789). Furthermore, the occurrence of the pandemic ended to the increase of the total number of employments, resulting in more job opportunities, which has contributed to GDP growth.

#### 4.2 Regression Analyses

Table 2 shows the initial run of the regression model under the first level difference as per LM Pesaran values. Lag value was derived from AIC = 1. The computed d-statistic of 1.22 was less than the critical dU of 1.430 at 0.05 critical level. Thus, autocorrelation was diagnosed in the panel regression model. Since there was an autocorrelation, the model was fixed, tested, and corrected.

**Table 2. PLS Initial Model**

<b>RGDP = 112.738 + 6.876TEM + 1.761.17TOM<sub>tt-1</sub></b>					
<i>t – Statistic</i>		(0.30)	(25.54)	(10.31)	
<i>p-value</i>		0.76	0.001	0.001	
	<b>R<sup>2</sup></b>	=	0.986	<b>DW</b>	= 1.22
	<b>Adj R<sup>2</sup></b>	=	0.985		
				<b>Critical Values</b>	
	<b>F(3,66)</b>	=	235.01	<b>DW</b>	dU 1.430
	<b>p-value</b>	=	0.001		dL 1.820

Table 3 shows the corrected run of the regression under first level difference as provided by LM Pesaran values. Table shows the fixed PLS model detected for autocorrelation. The computed d-statistics of 1.839 was higher than the accepted critical dU of 1.430 at 5% acceptance level. Thus, it was found that there is no autocorrelation detected in the corrected model.

There was a goodness of fit in the corrected PLS model with the computed value of 0.691 which meets the critical value of 0.50. Hence, the model was found to be significant.

The TOM was significant at 5 percent acceptance with the computed t-value of 2.45. It implies that as the number MSMEs per Region increases, the GDP will also increase. Therefore, the identified null hypothesis that the Regional GDP in the Philippines does not influence by the numbers of MSMEs per region, is hereby rejected. The study of (Censon et al. 2020) supports the PLS results which stated that the MSMEs significantly affect the GDP growth of countries including the Philippines, Thailand and Vietnam. Additionally, the number of MSMEs directly influenced the GDP in ASEAN countries including Singapore, Philippines, Thailand, Vietnam, and Malaysia (Mendoza & Tadeo, 2022). Furthermore, Putra (2021) revealed that 3,821

MSMEs in Indonesia, the Philippines, Laos, and Thailand, contribute 50 percent to Gross Domestic Product.

Similarly, TEM was found to be significant at 5% as the computed t-value of 2.14. It implies that if the RGDP increases, the total number of employments will also increase. Therefore, the identified null hypothesis that the Regional GDP in the country is not influenced by number of employment generation by MSMEs per region, was rejected. The study of Mendoza and Tadeo (2022) stated that the value of employment generated by MSMEs has directly affected the GDP in the ASEAN countries including the Philippines. MSMEs provide employment that contributes to the Gross Domestic Product through state income using taxes (Prawirodipoero et al. 2019).

Furthermore, the computed F-Statistic of 72.52 exceeds the 5 percent level of significance with 3 and 66 (df) values. This means that the computed PLS regression model is statistically significant and valid. Hence, the identified null hypothesis that the RGDP of the Philippines does not directly influence by the frequency of MSMEs as well as employment generated by MSMEs is hereby rejected.

**Table 3. PLS Corrected Model**

<b>logRGDP = 1.32 + 9.81logTOM + 1.13logTEM<sub>t-1</sub></b>					
<i>t – Statistic</i>		(10.01)	(2.45)	(2.14)	
<i>p-value</i>		0.001	0.001	0.001	
	<b>R<sup>2</sup> =</b>	0.691	<b>Adj R<sup>2</sup> =</b>	0.682	
	<b>F(3,66) =</b>	72.92	<b>DW =</b>	1.839	
	p-value	0.001			
			<b>Critical Value</b>		
			<b>DW</b>	dU	1.430
				dL	1.99

## 5.0 Conclusion and Recommendations

In reference to the prevailing analysis of the descriptive and regression analyses to the understudied independent variables towards the RGDP of the Philippines, thus, study concluded that:

1. The National Capital Region (NCR) has the highest concentration of MSMEs which is the center of economic activity of the Philippines followed by the Region IV-A, Calabarzon whilst the least concentration of MSMEs is found in the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM). The lead employment

generation from MSMEs in the country from 2018 to 2021 belongs to NCR while the least is found in BARMM respectively.

2. The total numbers of MSMEs as well as the employment generated by MSMEs significantly affect the Gross Domestic Product (GDP) per region. Considerably, the current value of the RGDP and the previous values lagged by a year is influenced by the current value of the total number of MSMEs and its employment generation. The study revealed that as the number of MSMEs rises, the GDP will also rise and when the number of employment decreases, the GDP will also decrease all other things equal.

As the result of the data the authors came up with this recommendation.

1. Government authority should provide safety-nets and stimuli to the least MSME concentrated regions in the Philippines by giving enough funds that can help MSMEs to grow foster. This strategy can improve and increase the MSMEs as well as employment generated by MSMEs and contribute to the increase of Philippine GDP.
2. Regions in the countries should focus on the weaknesses that can hinder the growth of their MSMEs and employment generated by MSMEs and improve their strategy to grow foster, they can also use their internal factors. This could help them to increase their contribution to the country's GDP.
3. Future Researchers should focus on the other variables that affect the RGDP in the country, to analyze the performance of the country's growth per year.

## References

- Adviento, E. N., Bumanlag, C. L., Fajarito, S. R., & Camaro, P. J. (2022). Philippine MSMEs-impact on sustainable economic development in employment generation, income inequality, and poverty. *UJoST-Universal Journal of Science and Technology*, 1(2), 222-260. <http://ujost.org/index.php/journal/article/view/86/20>
- Association of Southeast Asian Nations. (2020). *Development of micro, small, and medium enterprises in ASEAN (MSME)*. <https://asean.org/our-communities/economic-community/resilient-and-inclusive-asean/development-of-micro-small-and-medium-enterprises-in-asean-msme/>
- Banting, M. N. (2020). Extension-strategic needs assessment (SNA) for micro, small and medium enterprises (MSMES). *Editorial Board*, 1(1), 41. <https://3iec.tsu.edu.ph/media/muvnblsd/the-porch-maiden-issue.pdf#page=41>
- Callen, T. (2012). Gross domestic product: An economy's all. *Back to basics: Economic concepts explained (pp 14-15)*. International Monetary Fund: Washington, DC, USA. <https://www.imf.org/en/Publications/fandd/issues/Series/Back-to-Basics/gross-domestic-product-GDP>.
- Cammayo, E. U. (2021). Correlation between marketing strategies and financial performance of micro small medium enterprises in Isabela, Philippines. *Turkish Journal of Computer*

- and Mathematics Education (TURCOMAT)*, 12(10), 4211-4222. <https://www.turcomat.org/index.php/turkbilmart/article/view/5147>
- Campos, J. D. S. (2021). Analysis of entrepreneurial leadership skills and sustainable employee productivity of MSMEs. *Journal of Social Entrepreneurship Theory and Practice*, 1(1), 12-27. <https://doi.org/10.31098/jsetp.v1i1.645>.
- Censon, J. L., Sanque, H. F., Villegas, R. E., & Cabauatan, R. (2023). Impact of fiscal policies of the Philippines, Thailand, and Vietnam on MSMEs and their relative effects on GDP growth. *UJoST-Universal Journal of Science and Technology*, 2(1), 1-25. <http://ujost.org/index.php/journal/article/view/91>
- Dagpin, J. C., Escaño, A. R., Mendoza, X. L. D., & Vertuso, J. C. (2022). Microenterprises shutdown amidst COVID-19 pandemic: A focus on determinants and exit strategies. *Asia Pacific Journal of Academic Research in Business Administration*, 8(1), 22-28.
- Department of Trade and Industry. (2021). *2021 MSME statistics*. Department of Trade and Industry, Philippines. <https://www.dti.gov.ph/resources/msme-statistics/>
- Garcia, A. F., Akhlaque, A., Cirera, X., Frias, J. A. U., Chavez Crisostomo, P. K., Ong Lopez, A. B. C., ... & Camba, Y. K. V. (2019). Garcia, A., 2019. *Philippines: Assessing the effectiveness of MSME and entrepreneurship support*. World Bank Group. United States of America. <https://policycommons.net/artifacts/1280244/philippines/1871624/>.
- Kaftan, V., Kandalov, W., Molodtsov, I., Sherstobitova, A., & Strielkowski, W. (2023). Socio-economic stability and sustainable development in the post-COVID era: lessons for the business and economic leaders. *Sustainability*, 15(4), 2876. <https://doi.org/10.3390/su15042876>.
- Mendoza, X. L., Bruno, L. Y., Maglaque, B. S., & Solis, J. N. (2023). Influence of the factors of business opportunities among micro and small enterprises in selected areas of Cavite. *Asian Journal of Management, Entrepreneurship and Social Science*, 3(01), 136-155.
- Mendoza, X. L. D., & Tadeo, J. B. (2022). Analysis of micro, small, medium enterprises: The cases of Singapore, Malaysia, Philippines, Thailand and Vietnam. *Journal of Management, Economics, and Industrial Organization*, 7(1), 1-15. <http://doi.org/10.31039/jomeino.2023.7.1.1>.
- Micro, Small and Medium Enterprise Development (MSMED) Council. (2018). *MSME development plan 2017-2022*. Department of Trade and Industry, Philippines <https://www.dti.gov.ph/negosyo/msme-resources/msmed-plan/>
- Navarro, A. M., Debuque G. M., Francisco, K. A. (2021). *Reset and rebuild for a better Philippines in the post-pandemic world (no. 2021-22)*. Philippine Institute for Development Studies (PIDS), Quezon City. <https://www.econstor.eu/handle/10419/256857>
- One Planet Network. (2022, February). *Micro, small and medium enterprise (MSME) development plan 2017-2022-cross cutting strategy on promotion of green growth*. <https://www.oneplanetnetwork.org/knowledge-centre/policies/micro-small-and-medium-enterprise-msme-development-plan-2017-2022-cross>
- Prawirodipoero, G. M., Rahadi, R. A., & Hidayat, A. (2019). The influence of financial ratios analysis on the financial performance of micro small medium enterprises in Indonesia. *Review of Integrative Business and Economics Research*, 8, 393-400. [https://sibresearch.org/uploads/3/4/0/9/34097180/riber\\_8-s4\\_31\\_k19-126\\_393-400.pdf](https://sibresearch.org/uploads/3/4/0/9/34097180/riber_8-s4_31_k19-126_393-400.pdf)

- Putra, D. A. (2021). *The use of digitalization for micro, small and medium enterprises* (No. 258gj). Center for Open Science. <http://doi.org/10.31219/osf.io/258gj>
- Raquiza, M. V. R. (2021). *Micro, small, and medium enterprise (MSME) sector financing Issues and challenges (discussion paper 2021-01)*. University of the Philippines Center for Integrative and Development Studies. <https://cids.up.edu.ph/wp-content/uploads/2022/02/UP-CIDS-Discussion-Paper-2021-01.pdf>
- Senate Economic Planning Office (2012, March). *The MSME sector at a glance*. Senate of the Philippines. <http://legacy.senate.gov.ph/publications/AG%202012-03%20-%20MSME.pdf>
- Sobir, R. (2020). *Micro-, small and medium-sized enterprises (MSMEs) and their role in achieving the sustainable development goals (SDGs)*. United Nation: Department of Economic and Social Affairs. [https://sdgs.un.org/sites/default/files/2020-07/MSMEs\\_and\\_SDGs.pdf](https://sdgs.un.org/sites/default/files/2020-07/MSMEs_and_SDGs.pdf)
- Solis, G. G., & Tadeo, J. B. (2022). An analysis of the Philippine aggregate demand, money supply and interest rate: A monetarist perspective in economic-pandemic scenario. *Asia Pacific Journal of Academic Research in Business Administration*, 8(1), 29-37.
- Suhaili, M., & Sugiharsono, S. (2019). Role of MSME in absorbing labor and contribution to GDP. *Economics Development Analysis Journal*, 8(3), 301-315. <https://doi.org/10.15294/edaj.v8i3.35229>
- Surya, B., Menne, F., Sabhan, H., Suriani, S., Abubakar, H., & Idris, M. (2021). Economic growth, increasing productivity of SMEs, and open innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(1), 20. <https://doi.org/10.3390/joitmc7010020>
- Tadeo, J. B., & Mojica, M. A. (2022). The one town, one product program of Cavite Province: A focus on the growth-impeding constraints. *International Research Journal of Science, Technology, Education, and Management*, 2(4), 1-1.
- Tadeo, J. B., & Muralla, D. S. (2022). Opportunities and Challenges of Selected One Town One Product Enterprises in Selected Towns of Cavite Amidst Pandemic. *International Journal of Multidisciplinary: Applied Business and Education Research*, 3(11), 2255-2265.
- Tan, M. K. (2022, March). *2021 full-year economic report*. Senate economic planning office, Philippines. [https://legacy.senate.gov.ph/publications/SEPO/2021%20FY%20Econ%20Report\\_05Apr2022.pdf](https://legacy.senate.gov.ph/publications/SEPO/2021%20FY%20Econ%20Report_05Apr2022.pdf)
- Tecson, K., Garcia-Vigonte, F. (2022) The role of Philippine government to micro, small, and medium-size enterprises (MSMES) after the COVID-19 pandemic. <http://dx.doi.org/10.2139/ssrn.4117490>.
- Tekola, H., & Gidey, Y. (2019). Contributions of micro, small and medium enterprises (MSMEs) to income generation, employment and GDP: Case study Ethiopia. *Journal of Sustainable Development*, 12(3), 46-81. <https://doi.org/10.5539/jsd.v12n3p46>
- United Nations Development Programme Philippines. (2020, July). *MSME value chain rapid response survey*. <https://www.undp.org/philippines/publications/msme-value-chain-rapid-response-survey>

Tadeo, J. B., Mendoza, X. L. D., Tabor, F. J. M., Dumagat, S. M., & Pamintuan, R. Q. (2023). Understanding economic contributions of MSMEs among Philippine Regions. *Journal of Management, Economics, and Industrial Organization*, 7(3), 1-15. <http://doi.org/10.31039/jomeino.2023.7.3.1>

United Nations Philippines (2020, October). *MSME Sector is key to COVID-19 inclusive recovery for PH*. <https://philippines.un.org/en/93680-msme-sector-key-covid-19-inclusive-recovery-ph>

University of the Philippines Institute for Small-Scale Industries (2020, February). *Uplifting micro, small, and medium enterprises (MSMEs) in the Philippines thru DTI's 7ms: Suggested policies for implementation*. <https://beta.entrepreneurship.org.ph/2020/02>.