






UNDERSTANDING THE ECONOMIC LINKAGES AMONG SMALL AND MEDIUM ENTERPRISES, ECONOMIC GROWTH, AND EMPLOYEES IN MALAYSIA



 Mazmira Adan¹⁺
 Saiful Izzuan Hussain²
 Humaida Banu Samsudin³

¹Department of Mathematical Sciences, Faculty of Science and Technology Universiti Kebangsaan Malaysia, Bangi, Selangor, Malaysia; Department of Statistics, Malaysia, Federal Government Administrative Centre, Putrajaya, Malaysia

¹Email: mazmiraadan@gmail.com Tel: +6016-4665844

^{2,3}Department of Mathematical Sciences, Faculty of Science and Technology Universiti Kebangsaan Malaysia, Bangi, Selangor, Malaysia.

²Email: sih@ukm.edu.my Tel: +603-89215756

³Email: humaida@ukm.edu.my Tel: +603-89215713



(+ Corresponding author)

ABSTRACT

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This paper investigates the linkages among economic growth, small and medium enterprises (SMEs) and employees in Malaysia. It uses the total number of SME employees as a third variable to be associated with economic and SME growth using a panel dataset covering the period from 1998 to 2017. There are five main economic sectors in Malaysia: agriculture, construction, mining, manufacturing and services. The aim of the paper is to provide a better understanding of the relationship between SMEs, economic growth and the number of employees in the different sectors. Our findings indicate various causal relationships among the three variables in different sectors. The results of the study found that Malaysian economic growth contributed to the growth of the SME sector. In contrast, it showed that the growth of the SME sector only contributed to the growth of the manufacturing industry. The information gained will be useful for policymakers and help the government to plan for the future of the country by focusing on worthwhile activity.

Contribution/Originality: The paper's primary contribution is finding that SME is a key driver in contributed to the economic growth only in manufacturing activities. Otherwise in other activities, we found that the economic growth was the factor that stimulated the SMEs and at the same time increased the total number of employees.

1. INTRODUCTION

In Malaysia, the country's economic development is significantly influenced by small and medium enterprises (SMEs), but no evidence has been presented regarding their statistical linkages. The establishment of SMEs is considered to be related to a variety of factors, including the progress of a country's economic growth. Therefore, identifying the real causal linkages between SMEs and economic growth is a necessary research topic. SMEs are a driving factor in helping a country to achieve a good economic state, and they also have a strong impact on a nation's economies and become a worldwide source of employment (Ghobadian & Gallear, 1996). The growth of SMEs has driven strong growth of employment since 2013, and also supports the sustainability of Malaysia's

economic development. It is a fast-growing sector with the largest job opportunities available in the world, significantly contributing to economic growth in developing countries. SMEs enhance Malaysia's attractiveness to investors by providing cheaper investments and faster returns compared to other sectors, and will, therefore, help to boost the country's economy (Malaysia SME Corp, 2014).

New plans and ideas that boost the market are generated through innovation in SMEs (Griffin & Ebert, 2006). Large firms also need SMEs to supply their raw materials as well as assist in the distribution of goods to their target markets. Chinweuba and Sunday (2015) revealed that the expansion of output and other business activities has become essential for growth in SMEs. In developing countries, SMEs contribute in many ways, such as eradicating poverty by helping people to increase their income through employment opportunities generated by the broader SME sector, expanding economic activities in rural areas and providing a broad range of resources to assist growth. As well as providing support services and supplying large enterprises, SMEs work to stimulate entrepreneurial skills among the population, and act as an agent in the development of domestic companies into large companies (Habaradas, 2008).

Apart from their important roles in economic development and growth, dynamic SME sector contributions have long been recognized worldwide. SMEs have proved to be a vital factor in the development of the industrial sector of the economy (Bello, Jibir, & Ahmed, 2018). Craig, Rodriguez, and DeNoble (2008) reported on SMEs in the US and considered the SME sector as an incubator, not only in employment but also in innovation and growth. Similarly, Altman and Sabato (2007) stated that most of the registered firms in the member countries of the Organisation for Economic Co-operation and Development (OECD) are SMEs, which account for about 97%. For instance, in the US alone, SMEs have supplied nearly 75% of the country's employment needs that have been added to the economy. According to Leonelli, Masciarelli, and Fontana (2019), the orientation of entrepreneurs is a critical factor for economic development as well as for innovation and job opportunities.

This phenomenon also occurs in Malaysia where SMEs constitute approximately 98.5% of total firms and contribute 37.8% to Malaysia's GDP (Department of Statistics Malaysia, 2018). The government has assumed that the SME sector is the highest contributor and a key driver for Malaysia's economic growth. It has been recognized that the SME sector is responsible for stimulating growth in Malaysia's economy since the implementation of the Fifth Malaysia's Plan (1986–1990), which is part of the country's plan for long-term economic stability and sustainability (Dana, 1987). Based on various perspectives on the significance of SMEs, the government introduced a New Economic Model (NEM) in 2015, which primarily focused on domestic SMEs. The NEM stated that SMEs are a key factor in economic growth that would enable Malaysia to attain development and cement its status as a high-income nation by 2020 (TalentCorp Malaysia, 2015).

Vermeulen (2011) agreed with the World Bank's assessment that SMEs contribute considerably to the economy by being the engine of economic growth, which is vital to increase competition and efficiency in the business market. In addition, SMEs are also essential in reducing the country's poverty rate. Audretsch and Keilbach (2004) argued that SMEs are important determinants of economic growth. Some researchers have suggested that SMEs are necessary for creating job and enhancing the growth of social progress because successful countries function around a successful small business sector economically (Nager, Swanepoel, & Van Der Merwe, 2014). However, empirical results have also indicated that some SME sectors show different result that are not positively linked to the growth of the country's economy. This result may be due to institutional inefficiency that prevents SMEs from achieving their optimal size, which is need for generating economic growth (Beck, Demirguc-Kunt, & Levine, 2005; Beck & Demirguc-Kunt, 2006).

SMEs contribute a high percentage to GDP; therefore, they should receive support to guarantee performance, thereby affecting the economy positively. According to Ayandibu and Houghton (2017), despite the immense contribution of SMEs to the economy, they cannot avoid the obstacles and challenges that come their way. The difficulty in obtaining finance is perceived as the biggest obstacle that prevents the growth of SMEs (Wang, 2016).

Bello et al. (2018) suggested that the government should implement a new policy that could be used to curb excessive imports, especially goods that can be produced locally in order to protect local manufacturers from rivalry. Certain steps need to be taken to ensure that a sufficient infrastructure is in place. If these challenges can be tackled with the relevant objectives to overcome them, the economy will certainly improve.

1.1. Linkage between SMEs and Economic Growth

Economic development is associated with the increase of a country's GDP, and through GDP the government can also be aware of the current economic situation of a country. A higher GDP indicates that the economy of a country is improving. Malaysia only contributed 37.8% to GDP in 2018 compared to other developed Asian countries, such as Japan, where the SME contributions to GDP exceeded 55%. However, Malaysian SMEs' growth of 6.6% per annum is at an average rate and performed well against GDP growth of 5.2% of the overall GDP from 2011 to 2015 (Malaysia SME Corp., 2018). Despite the challenging global environment Malaysia's GDP growth to 4.9% in the second quarter of 2019 from 4.5% in the previous quarter demonstrates the country's resilience. The news pointed out that Malaysia is focusing on the development of the domestic economy and is undergoing preparation for contingent expansionary measures (Star Online, 2019).

Tambunan (2008) reported that SME growth is to be positively impacted by both real GDP per capita and government development spending. Factors such as economic growth, national development and management skills are complementary to the success of SMEs, and the processes are related to each other. This means it is undeniable that there a positive relationship exists between economic growth and SME success. Fundamentally, economic growth depends largely on the success of SMEs (Scheers, 2016). However, no specific evidence has been presented on how exactly SMEs contribute to economic growth; the relationship appears to be indirect rather than direct (Ayandibu & Houghton, 2017).

As there seems to be a plausible linkage between Malaysian economic growth and SMEs, this study was conducted to define and investigate the exact statistical linkages between them. This paper also aims to prove whether SMEs are the main economic drivers that contribute to the country's GDP growth, or vice versa, or whether they have a boosting effect on each other. Aside from identifying the real causal relationship between SMEs and the country's GDP, this paper also investigates the distribution of dependency structure between the SMEs' roles and GDP.

Most of the previous studies focused on gathering information on the contribution of SMEs to GDP and the impact on economic development as well as investigating the role of SMEs. Those studies evaluated the achievement of SMEs in contributing to the improvement of the national economy. Beck et al. (2005) and Audretsch and Keilbach (2004) evaluated the economic growth in developed countries as a result of entrepreneurial activity. Leegwater and Shaw (2008) found that there was a positive linkage between SMEs and economic growth, whereby the former stimulated the latter. Karadag (2016) found that, although factors such as the creation of new ventures, jobs, and the contribution of the SME sector to the economy vary widely, the economic growth and development of the SME sector are closely linked in both developed and developing countries. Moreover, some studies suggested a negative or neutral impact of SMEs on economic growth, whereas other studies that examined developed countries suggested a positive impact. Therefore, it is not surprising that various studies are ongoing to develop strategies that are aimed at improving SME performance (Lussier, Bandara, & Marom, 2016).

Economic institutions, and many studies, suggest that the effect of SMEs on economic growth is a direct causation, and vice versa, and we adopted the same perspectives in this study. Therefore, we must ensure that the implementation of entrepreneurial activities is smooth and at the same time increases job opportunities by developing an efficient SME support policy (Adeoye & Abu, 2015). When the environmental adaptability developed by SMEs (e.g. adjusting to consumer tastes, government regulations, and new technologies) has not been maximized, it is advisable to further implement entrepreneurial competencies, encourage innovation creativity, and

increase adaptation to changes in consumer behavior so that they can develop their own characteristics and increase competitiveness. The ability to manage and adapt to the environment can create a strategy that is oriented to improving competitive advantage (Huda, Munandar, & Syamsinirwani, 2018).

Regardless of the level of economic conditions, most countries around the world continue to implement policies for SME development due to the awareness that SMEs can help to pave the way for sustainable economic development, and previous literature has focused on the various policies and programs used to stimulate the growth and performance of the SME sector.

The link between this study and past works is taken into consideration and used as guidance to determine causalities among SMEs, GDP growth and SME employees. Hence, determining the direction of the causality between SMEs and economic growth in advance is a critical task. The most efficient and feasible method to determine the direction of causality is by applying the Granger causality test. To the best of our knowledge, no study has employed the Granger causality test to investigate SME growth by analyzing the direction of the linkages between SMEs and economic growth. Thus far, several studies have undertaken different approaches and these have produced conflicting evidence.

This study is important in carrying out the researchers' aim of examining and understanding the linkage between SME performance and the growth of Malaysia's economy. This paper also aims to identify the causalities among the three variables (SMEs, economic growth, and employees) by employing the panel Granger tests developed by Dumitrescu and Hurlin (2012). Past studies have revealed a capable robust linkage between the SME sector and economic growth in both directions. From an economic point of view, policymakers are required to understand the direction of the linkage, so that they can create and implement effective policies. Thus, determining the direction of relationship between them is important.

2. MATERIALS AND METHODS

2.1. Data

This study used data on Malaysia's GDP and the SME sector's value added, which is based on economic activity and expressed in Malaysian ringgits. Data on the total number of SME employees by activity was used as an additional variable, and GDP was used to reflect the current situation of the Malaysian economy. Barro (2002) stated that the ideal representative of the country's economic growth is GDP. The data used in this study included data on economic activities from 1998 to 2017. There are five main economic sectors in Malaysia: agriculture, mining, construction, manufacturing, and services. Each sector has its own GDP and value-added contributions from SMEs. The data employed in this study was obtained from the Department of Statistics Malaysia, which conducted the relevant surveys and censuses.

3. METHODOLOGY

This study employed a panel analysis initiated by Dumitrescu and Hurlin (2012). This version is superior compared to the previous panel Granger causality test, because even with a small sample size it yields more accurate results. It is also capable of being used for a panel that is unbalanced or cross-sectional without the need for any specific estimation.

The version of the methodology trialed in this paper is the later version, as it does not require much effort and even permits different lag orders for each cross-sectional unit. As mentioned by Dumitrescu and Hurlin (2012), this is one of the prerequisites for recommending a panel Granger causality analysis that contributes to cross-sectional dependence. A relationship does not exist if there are no two variables (x and y) that impact each other. A Granger causality test allows them to switch between one another to test the directions of the relationship between the variables to examine the bidirectional causality.

Meanwhile, [Bilen, Yilanci, and Eryüzlü \(2017\)](#) mentioned that this approach can help to determine whether the prediction of the second variable is enhanced or not when the lagged value is added to the equation of the model. This approach, which is based on a simple Wald test, allows us to check the significance of the lagged values of the second variable. Although it has some weaknesses, it is one of the most favored econometric methods in the literature. For instance, the existence of the Granger causality over dissimilar frequencies cannot be tested. Nevertheless, a Wald test was initiated by [Geweke \(1982\)](#) to analyze the frequency domain to investigate if there is any existence of Granger causality; by employing this test we can determine the time series variability as a purpose of frequency that conflicts with the time domain.

3.1. Unit Root

It was necessary to check the data to ensure the order of integration in the series. This paper applied a panel unit root test that was constructed by [Levin, Lin, and Chu \(2002\)](#), which we refer to from here on as LLC, and [Im, Pesaran, and Shin \(2003\)](#) is referred to as IPS. The [Levin et al. \(2002\)](#) method checked the null hypothesis $\rho_i = 0$ for all i , contrary to the alternative hypothesis $\rho_i \leq 0$ for all i . The null hypothesis was not accepted given the possibility of panel integration process. They also presumed the similarity of the persistence parameters ρ_i over the cross-sections (i.e. $\rho_i = \rho$ for all i), though the lag order p_i can be different from one to another.

$$\Delta y_{i,t} = \rho_i y_{i,t-1} + \sum_{j=1}^{p_i} \delta_{i,j} \Delta y_{i,t-j} + \varepsilon_{i,t} \quad [1]$$

The [Im et al. \(2003\)](#) test was constructed from Equation 1, but differs from the LLC test. The IPS tested the null hypothesis $H_0: \rho_i = 0$ and the alternative hypothesis $H_1: \rho_i < 0, (i = 1, \dots, N); \rho_i = 0, (i = N, \dots, N)$ for all i , and considered ρ_i to be diversified over the cross-sections. This approach allowed the individual series to be unified if the alternative hypothesis is accepted. In the present study, the data that was tested had the same levels and differences. As can be seen in [Table 1](#), the results revealed that all of the variables are stationary in the first difference, however, it showed a mixed level of results.

Table 1. Panel Unit Root Test.

H ₀ : All panels contain unit root								
	LLC test				IPS test			
Variables	Constant	p-value	Trend	p-value	Constant	p-value	Trend	p-value
Malaysia's GDP	-4.766	0.000	1811.31	0.990	2.981	0.990	0.072	0.529
SMEs	-4.597	0.000	1723.76	0.990	10.487	0.990	5.409	0.990
Employees	-4.930	0.000	1556.09	0.990	2.338	0.990	0.719	0.764
Δ Malaysia's GDP	-0.262	0.397	-7.545	0.000	-4.743	0.001	-7.660	0.000
Δ SMEs	-0.142	0.556	-3.594	0.000	-1.403	0.080	-3.845	0.000
Δ Employees	-4.730	0.000	-3.588	0.000	-5.681	0.000	-3.852	0.000

Note: Δ is the difference.

The LLC test was performed using the PLM employed by [Croissant and Millo \(2008\)](#). An automatic selection of lag was used, with the AIC method employed to determine the optimal lag length (1 to 5 lags). The IPS test was also performed based on the same equation.

As shown in [Table 1](#), there are various p-values for the LLC constant and the IPS test, and trend test results for both. However, a result with a low p-value, or less than 0.05, should be used in order to progress to the next

step of the test. This is to certify that the study used the appropriate data. This study used the p-values obtained from the LLC trend and IPS test where all p-values were less than 0.05 for all variables (Malaysia's GDP, SMEs, and employees).

3.2. Granger Causality

This study applied the panel analysis formed by Dumitrescu and Hurlin (2012), which is called Granger causality test. It is based on the functional relationship given by:

$$\text{Economic growth} = f(\text{SMEs}), \quad [2]$$

where we used annual GDP to represent Malaysia's economic growth, SMEs, and the annual value-added contribution of the SMEs.

A panel causality test, which was built from the individual Wald statistic of Granger noncausality averaged throughout the cross-sectional units, was adopted by Dumitrescu and Hurlin (2012), and considers the effect of causal relationships' heterogeneity. The formulation developed by Dumitrescu and Hurlin (2012) can be written as follows:

$$y_{i,t} = \alpha_i + \sum_{j=1}^J \lambda_i^j y_{i,t-j} + \sum_{j=1}^J \beta_i^j X_{i,t-j} + \varepsilon_{i,t} \quad [3]$$

with $t = 1, \dots, T$,

Where y is the actual income growth and x is the variable's vector, SME.

Dumitrescu and Hurlin (2012) advised testing the null hypothesis of no causal linkage for all of the cross-sectional units ($H_0: \beta_i = 0, (i = 1, \dots, N)$) by using an average Wald statistic in opposition to the alternative that a causal linkage happens for at least one sub group of the panel ($H_1: \beta_i = 0, (i = 1, \dots, N_i): \beta_i \neq 0, (I = N_i + 1, N_i + 2, \dots, N)$). This is because they mention that an identical description of the relation among variables x and y does not explain a causality relation, or whether any character from the sample has a unique economic habit that differs from the others.

The rejection of the null hypothesis with $N_i > 0$ fulfils the proof required that the causal relationship and the regression model differ from each other, though the rejection of the null hypothesis with $N_i = 0$ reveals that x Granger causes y for all i .

In accordance with this, Dumitrescu and Hurlin (2012) produced the average of the individual Wald statistic as follows:

$$W_{N,T}^{Hnc} = \frac{1}{N} \sum_{i=1}^N W_{i,T}, \quad [4]$$

where $W_{i,T}$ is the individual Wald statistic for the i -th cross-sectional units.

4. RESULTS AND DISCUSSION

4.1. Result

Table 2 presents the results of the panel Granger causality test among the three variables (economic growth, SMEs, and employees) that are involved in the five major sectors in Malaysia namely, agriculture, mining, manufacturing, construction, and services. The table also indicates that the null hypothesis is either rejected or accepted in each.

The Granger causality analysis conducted in this study has shown various causal relationships among the three variables. There are varying linkages between variables in different activities. The main variables are economic growth, which is represented by the country's GDP, and the growth of SMEs, which is represented by the SMEs' value-added. The additional variable included in this study is the number of employees in the SME sector. All of these variables were analyzed according to the five main economic sectors. Each sector has its own GDP and SMEs,

whose value-added contributions vary (the applies to the total number of employees for each sector) and also depends on the economic situation of each.

The causal relationships shown in [Table 2](#) indicate the refusal of the first null hypothesis, which reveals that SME growth is generated by the growth of Malaysia's economy in four sectors (agriculture, manufacturing, construction, and services). From the Granger causality analysis conducted, it is also evident that SMEs do not significantly generate economic growth in most of the sectors; in fact, the opposite is true; economic growth is caused by SME growth only in the manufacturing industry. This is proven by the rejection of the second hypothesis in the manufacturing industry. The rejection revealed the validity of the assumption that SMEs do not affect economic growth in agriculture, mining, construction, or services. Furthermore, the study also reported that no Granger causality linkage exists among the variables in the mining industry. However, the study specified a crucial bidirectional linkage among SMEs and economic growth in the manufacturing industry.

This study also attempted to relate another variable, the number of employees, to the other two variables, and we tested whether this has a causal linkage affecting SME growth or economic growth. As [Table 2](#) indicates, employee growth is significantly caused by SME growth in agriculture, mining, construction, and services. Moreover, SME growth is caused by employees only in the construction industry. This indicates that employees do not significantly cause SME development in agriculture, mining, manufacturing, or services. Meanwhile, the analysis found that there is a bidirectional relationship between SME growth and employees in construction.

[Table 2](#) also demonstrates that employee growth is caused by economic growth in construction and services only. It specifies that economic growth is caused by employees in all sectors except mining and services.

These results show the validity of the feedback hypothesis between employees and economic growth, and also between employees and SME growth in construction. Meanwhile, the neutrality hypothesis is proven between SME growth and employees in manufacturing. The Granger causality between Malaysia's economic growth and employee growth proves the validity of the assumption that economic growth does not imply Granger causality toward employees, except in the construction and services industries. This evidence proves the existence of the feedback hypothesis in the construction industry. The neutrality hypothesis also occurred in the mining industry.

Based on the statistical results revealed in [Table 2](#), we can now construct a final table that can demonstrate what is supported among the growth, conservation, feedback, and neutrality hypotheses.

[Table 3](#) shows that, in the study between economic growth and SMEs, the growth hypothesis is valid in the agriculture, construction, and services industries, the neutrality hypothesis is supported in the mining industry only, and the feedback hypothesis holds only for the manufacturing industry. When we tested the SME growth and the employees, the growth hypothesis holds for agriculture, mining, and services, the feedback hypothesis is supported only in construction, and the neutrality hypothesis is valid only for manufacturing. After testing between economic growth and employees, we find that the growth hypothesis is only valid for services, the neutrality hypothesis holds for mining, the feedback hypothesis is supported in the field of construction, and the conservation hypothesis holds for the agriculture and manufacturing industries.

[Chen and Chiou-Wei \(2009\)](#) reported that the causal linkage does not necessarily achieve a common agreement because the relation between economic growth and another variable is not a stable relationship. The linkage may vary between countries depending on their dynamics, such as economic structure, interrelations between economic sectors, and the historical background of the country. All of these factors will lead to different hypothesis results depending on each specific country's situation.

Table 2. Results of the Panel Granger Causality Test.

Null hypothesis												
Malaysia's Economic Sectors	H ₀ : Malaysia's economic growth does not cause SME growth		H ₀ : SME growth does not cause Malaysia's economic growth		H ₀ : SME growth does not cause employee growth		H ₀ : Employee growth does not cause SME growth		H ₀ : Malaysia's economic growth does not cause employee growth		H ₀ : Employee growth does not cause Malaysia's economic growth	
	Statistics test	Decision	Statistics test	Decision	Statistics test	Decision	Statistics test	Decision	Statistics test	Decision	Statistics test	Decision
Agriculture	**3.294	Reject	0.152	Accept	**3.109	Reject	0.576	Accept	0.381	Accept	**3.695	Reject
Mining	0.007	Accept	0.077	Accept	*15.687	Reject	0.000	Accept	0.087	Accept	0.888	Accept
Manufacturing	*5.977	Reject	**3.849	Reject	0.038	Accept	1.470	Accept	0.549	Accept	*4.779	Reject
Construction	*9.026	Reject	0.117	Accept	*6.400	Reject	*6.030	Reject	*7.353	Reject	*29.875	Reject
Services	*5.876	Reject	0.889	Accept	*11.057	Reject	0.048	Accept	**3.419	Reject	0.352	Accept

Note: * Significant at 0.01, ** significant at 0.05. Accepted = Do not have enough evidence to reject H₀.

Table 3. Specific Hypotheses.

Malaysia's Economic Sectors	Indicators		
	Economic growth vs SMEs	SME growth vs Employees	Economic growth vs Employees
Agriculture	Growth	Growth	Conservation
Mining	Neutrality	Growth	Neutrality
Manufacturing	Feedback	Neutrality	Conservation
Construction	Growth	Feedback	Feedback
Services	Growth	Growth	Growth

Overall, the results confirmed that the SME sector in manufacturing has a strong linkage with the country's economic growth. Both variables in manufacturing are causally related with each other when both null hypotheses are rejected. This indicates that a bidirectional linkage exists between SMEs and economic growth, but the SMEs do not affect economic growth in other sectors. In addition, economic growth does not imply Granger causality for employees, except in construction and services. However, in other sectors, only a one-way causal relationship exists (economic growth is causally related to SME development), except in mining, which did not have any causal relationship. Therefore, SMEs only affect economic growth in certain industries.

5. CONCLUSION

The causal linkage analysis between SMEs and the growth of Malaysia's economy, which is represented by GDP, has attracted great attention from researchers, as policy proposals can be drawn from possible links. Determining accurate causal linkages between SMEs and economic growth plays a crucial role in any policy formulation. For example, from a strategic planning standpoint, unilateral causal linkage running from SMEs to economic growth would encourage policymakers to design and implement policies to improve the development of SMEs to boost economic growth. It also means that conservation policies could reduce poverty and societal welfare needs (Iyke, 2015). In order to achieve the country's goal of maintaining a sustainable economy, the government needs to prioritize SME goals, such as providing business facilities and offering incentives, improving business support infrastructure, addressing labor problems (e.g. shortage of skilled workers), and expanding the markets so that they can efficiently continue to play their role in improving Malaysia's economy.

As the backbone of Malaysia's economic growth, SMEs are essential for the country's economic development, and the contribution of SMEs continues to grow as Malaysia moves towards achieving status as a developed nation by 2020 (Bank Negara Malaysia, 2008). Thus, the government should play their role in educating SME entrepreneurs, especially regarding the access of incentives and related facilities. The use of these incentives needs to be fully optimized, which will enhance the growth of the Malaysian economy.

This paper found a mutual relation of causality between SMEs and economic expansion in Malaysia. However, the data obtained from this study does not confidently support the conclusion that SMEs have an impact on overall economic growth. Furthermore, there was no evidence to show that economic growth in each sector has been driven by SMEs. The study revealed that economic growth is caused by SME growth only in the manufacturing industry as both null hypotheses were rejected. This shows the existence of a bidirectional relationship between SMEs and economic growth in manufacturing, although SMEs do not affect the economic growth in other sectors. In addition, economic growth does not imply Granger causality toward employees except in construction and services. We also found Granger causalities between SME growth and employees, and between employees and economic growth, but only in construction. Therefore, SMEs only affect economic growth in certain sectors. This study also revealed that the linkages between these two variables are positive and eminent in the country in the long run. This study directly demonstrated that SMEs are closely related to economic growth. However, the linkage is interdependent, the direction of the linkage is dependent on the economic activity, and the linkage is determined by the factors within the economy itself. In other words, the development of the Malaysian economy

does not depend solely on the role of SMEs, but both are highly interdependent in realizing better economic conditions of Malaysia.

Even though the evidence for all hypotheses is fully supported by the findings, it is clear that the directions of Granger causality among SMEs and economic growth vary among all economic sectors. These require several explanations and may be related to the economic strength of the sectors themselves. Assuming that the growth of SMEs is related to other elements, as expected, the country's economic growth will accelerate if SMEs have a greater output, and vice versa. Another aspect that affects the causality's direction is the number of employees. It is, therefore, appropriate to consider the number of employees as a factor that is also of interest to SMEs and economic growth. As we know, the absence of economic growth will lead to the collapse of SMEs. Moreover, accurate causal linkages among SMEs and economic growth play a crucial role in policy formulation.

As new data emerges, further research should be done to investigate the connections among SME growth, employee growth and economic development in order to determine whether our findings are consistent. This study can also be replicated in different countries, especially in developing countries, to observe the linkages among the three variables. Improving the intensity of linkages is an important task to ensure Malaysia's future development. In this way, the study can offer effective recommendations to policymakers in other countries in their quest for faster and healthier economic growth.

Future studies should focus on how to create new organizational concepts and manage a business effectively. Developing countries can increase their economic growth rate by implementing successful practices from other countries. The benefits will transpire through increased innovation and production. Success may also be due to entrepreneurs' efforts to grow sustainable businesses by applying knowledge gained from other countries. In developing countries, marketability and competitiveness are also dominant features, while developed countries have stronger impacts from high-tech imports and human capital.

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