The Contribution of SMEs to the Local Power for Economic Reproduction in the Philippines

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ABSTRACT
The paper introduces and elucidates Okada’s approach of the local power for economic reproduction. It uses the approach as a tool to analyze the role and contribution of SMEs in the local economy of the Philippines. Under the approach, the local power for economic reproduction is the power that determines the scale and quality of economic reproduction. It strengthens when the funds locally generated are used and circulated within the locality.

The paper points out the country’s propensity of using imported means of production that has led to chronic trade deficit. Due to the chronic trade deficit, the country has faced numerous balance of payments crises. The government has responded to the crises by actively using external debt and foreign direct investment. However, external debts and foreign direct investments are attendant with local funds outflow for debt servicing and for profit remittance. The paper argues that these weaken the local power for economic reproduction.

The paper establishes that SMEs contribute more in strengthening the local power for economic reproduction than large enterprises (LEs) in terms of using more local material inputs. Additionally, locally-owned SMEs use more local material inputs than foreign-owned ones, and local market-focused SMEs than exports-focused ones.

The paper suggests that in order for development to be sustainable in the Philippines there is a need to increase the local content of the production of enterprises and strengthen the local power for economic reproduction. The results of the analyses suggest that a possible way is for the government is to adopt a development policy based on the perspective of the local power for economic reproduction that promotes the development of SMEs and the increase of the local content of production.

KEYWORDS: Local development, Local power for economic reproduction, SMEs, The Philippines
JEL CLASSIFICATION: O00, O10, O53

1. INTRODUCTION

The study focuses on small and medium-sized enterprises (SMEs) in the Philippines and their role in advancing the country’s sustainable economic development. The paper uses the approach of the local power for economic reproduction (Okada 2005) as the analytical framework.

Numerous studies have been made on SMEs in the Philippines regarding their productive
Japan Social Innovation Journal, Vol. 7, No. 1, 2017

characteristics for economic development. The government has pointed out that SMEs play an important role in promoting economic growth and in providing employment in the country (Leano, 2004). Additionally, it has been shown that SMEs have shown resilience in times of economic crisis (Berry, & Rodriguez, 2001).

Many studies have also been made regarding the economic policies to promote SME development in the Philippines. For example, Tamangan, Josef, and Habito (2004) argue that SME development can be pursued through the increase of exports. Meanwhile, Aldaba (2010) argues about SMEs opportunity of expanding their operations through involvement in regional production and distribution networks.

Most of the studies on SMEs in the Philippines use the neoclassical economics approach. Under this approach, economic development is understood as outward economic indices of growth, productivity, income, and employment (Armstrong, & Taylor, 2000). To promote the increase of these indices, governments around the world would often base their development strategies according to the exogenous development paradigm. That is to say that these strategies tend to focus on external factors such as external demand, attraction of leading transnational enterprises, and the mobility of capital and labor. However, there are serious dissatisfactions to these strategies. For example, Pike, Rodriguez-Pose, and Tomaney (2007) have pointed out that the understandings on local development are socially determined within the geographical and historical contexts. Another serious dissatisfaction comes from the argument that the focus on outward indices prevents the examination of the underlying bases of geographical economic deprivation (Glasmeier, 2000).

Shima (1951) in Japan has pointed out the two contradictory tendencies that are embedded in exogenous development paradigm and that cause geographical economic deprivation. He has shown that the geographical dispersion of the means of production (such as the expansion of production to other localities) is simultaneous with the concentration of income in major cities (Shima, 1951; Lambino, 2010). Meanwhile, Okada (2005) has added to Shima’s arguments that while the increased mobility of capital in the form of foreign direct investments has led to the geographical expansion of production to the global scale, the control of global income and wealth has continued to be concentrated in corporate headquarters often located in global cities.

As an alternative to the exogenous development paradigm, scholars of local and regional economy in Japan have brought forward the approach of active local development. They see exogenous development as a form of passive local development. They understand passive development as the alteration of a locality from the top or outside (Okada 2005). Under the setup of passive development, the local people and the locality are the receivers of the action of economic development. As they are the receivers, they are seen as passive to the action of development. On the other hand, for local development to be active, the scholars argue that the local people have to be the doers of economic development.

Similar to the endogenous development approach (Tödtling, 2011; Stöhr, 1990; Pike, Rodriguez-Pose, & Tomaney, 2006), the active local development approach gives more importance

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1 Exogenous development is defined as the development that is oriented towards and driven from outside of the locality (Moseley, 2003).
2 In original Japanese, active local development is called chiiki hatten.
3 Passive local development in original Japanese is called chiiki kaihatsu.
4 In active voice, the subject is the doer of the action. In passive voice, the subject is the receiver of the action. In active local development, the local people and the locality are the subject of development as the doers. In passive local development, they are the subject of development as the receivers.
5 A similar approach in the West is called the indigenous development approach. Pike, Rodriguez-Pose, and Tomaney (2006) define the approach as a naturally occurring and/or socially produced in the locality or region. The approach gives preference to home-grown or indigenous resources such as natural resources and resident labor. It is argued that these resources being home-grown and locally embedded are more committed and more capable of making sustained contributions to local development.
to local factors and processes than external ones. Both approaches see development being bottom-up. However, there is a difference in the nuance regarding the relationship of the local people and the locality on the one hand, and development on the other. Endogenous development can be understood in a way that the local people serve as the agents of development. This implies that the endogenous approach is merely one of the approaches to development. On the other hand, in active local development it is contingent for the local people to be the doers of development. Under active local development approach, what is initiated and created by the local people towards the fulfillment of their requirements and aspirations defines local development. In this case, the local people and the locality develop themselves.

To promote active local development, Okada (2005) puts forward the approach of local power for economic reproduction. Although it has gained acceptance in Japan as a tool to analyze local and regional economy and to design development policy, it has yet to be utilized in academic discussions in the English language. One significance of this paper is to introduce this approach to researchers mainly using the English language.

Since the studies on SMEs in the Philippines are often conducted based on the neoclassical approach to economic development, another significance of the paper is that by using the approach of local power for economic reproduction it provides an alternative approach to study economic transformation happening in the Philippines. This leads to the widening and deepening of understanding SMEs on their role in active local development.

The paper has three objectives. One: To introduce the approach of local power for economic reproduction in economic development studies. Two: To make a critical examination on the Philippine economy and its overdependence on external factors. Three: To examine the role of SMEs in the Philippines in promoting the local power for economic reproduction.

2. THE LOCAL POWER FOR ECONOMIC REPRODUCTION

Okada (2005) develops the approach of the local power for economic reproduction as a tool to analyze the local economy and to develop policies that would overcome geographical economic inequality and that would promote sustainable local development. The local power for economic reproduction is the power of the locality to recirculate local funds between local economic units and consequently to accumulate funds within the locality.

Okada bases the approach on the political economy concept of economic reproduction. Economic reproduction is the continuing cycle of economic production and consumption. It is called reproduction because the cycle of production and consumption has to be reproduced for it to continue. Goods and services that are produced in the previous cycle are purchased and consumed to be used for the reproduction of the labor power and the means of production to be used in the next cycle.

6 In original Japanese, the local power for economic reproduction is chiikinai saitōshiryoku. The direct translation is local reinvestment power. Here, it is translated as the local power for economic reproduction because reinvestment (saitōshi) in the approach is being understood as the recirculation of funds including those activities by NGOs and other economic units that do not involve the pursuit of profit. Another possible translation of chiikinai saitōshiryoku is the local power for economic recirculation.

7 The cycles of economic production continue when the labor powers of those working are recovered and those things necessary for their work are replenished. Those working recover their power to work (i.e. labor power) such as by eating and resting. Those necessary for work (i.e. the means of production) are the material inputs and work implements. The material inputs that are used up are replaced, and the work implements are repaired and are replaced when fully used up (i.e. fully depreciated). What this means is that at the core of the continuing cycles of economic production is economic reproduction.

8 In the paper, the concept of consumption is being used more broadly to refer to the utilization of goods and services irrelevant whether they are for the sustenance of the people or for the maintenance of the means of production.
Economic reproduction has three tendencies: simple reproduction, contractionary reproduction, and expansionary reproduction.

In simple reproduction, the goods and services produced in the previous cycle are consumed to produce the same amount of goods and services in the next cycle. It means that the scale of economic production and the actual size of the economy continue to remain the same. On the other hand, in contractionary reproduction, the scale of production contracts. The goods and services produced in the previous cycle are not adequate to produce the same amounts of goods and services in the next cycle. When this continues, farmers, artisans, and business owners cannot sustain their production activities. Eventually, people lose their jobs and move to other locations for work. Meanwhile, in expansionary reproduction, the scale of production expands. Here, a portion of the goods and services produced in the previous cycle are used to expand the scale of production of goods and services in the next cycle. The local people would be producing more, and as the local economy expands people would be moving into the locality for work.

In the capitalist era, capital is the major economic actor affecting economic reproduction (Okada, 2005). Although it was originally hatched within the local sphere of human living and wellbeing, it has evolved to the extent that it has become separated from that sphere (Okada, 2005). Its form now is to have the inclination to break down the local limits through technological innovations in transportation and communications (Harvey, 1989; Lambino, 2010). The current quintessential forms are the transnational corporations whose economic activities cover all the four corners of the world (Okada, 2005).

Okada (2005) uses the concept of locality to bring back the focus of economic reproduction to the local sphere of human living and wellbeing. For him, economic development is not simply economic growth. When economic development is uncritically and simply understood as economic growth, policymakers and the people end up promoting and supporting the simple entry of large enterprises or transnational enterprises even though their economic activities in the locality are in essence only transitory. Under this kind of economic policy, the locality becomes vulnerable to the changes in the industrial structure external to it and to the intensification of global competition for profits (Okada, 2005) to the extent that the people’s wellbeing becomes peripheral to profitable interests of large corporations. For instance, there are the cases in which mining companies leave the countries in which they operate to escape any legal liability and moral responsibility for damaging the local environment. Another illustration of the problem is the retrenchment of workers and the consequent difficulties faced by their families as factories of transnational corporations relocate to locations that are cheaper in terms of production costs and therefore more profitable for these corporations.

For Okada (2005), local development is about the local people initiating and doing the economic development. Because they are the ones doing the economic development, it is expected that their lives would be towards improvement while sustaining their natural and social environments in good condition. The locality has the power to determine the quality and the scale of economic reproduction.

The local power includes the quality of local resource such as the technology and techniques in producing goods and services, and the marketing ability to sell these (Okada, 2005). For the local power to strengthen and expansionary reproduction to be sustained, Okada (2005) points out the importance of utilizing local funds within the locality. Under this setup, local funds do not escape and consequently they accumulate in the locality.

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9 Here, capital is understood as the wealth that grows through the circulation process.
10 The Oxford English Dictionary (Simpson, & Weiner, 1989) defines locality as “the fact or quality of having a place, that is having a position in space” or “the fact of being local, in the sense of belonging to a particular spot.” The definitions identify the locality’s quality of particularity vis-à-vis space.
On the other hand, if the local power is not strong enough, economic reproduction contracts and the economy eventually becomes exhausted. It weakens when local economic units utilize and reinvest the local funds outside the local economy. For instance, this happens when local economic units have the propensity to utilize local funds outside such as when using non-local inputs for their production.

According to Okada (2005), it is difficult to expect external enterprises and their subsidiaries to be the local doer of development. Especially for transnational companies, the utilization of funds generated within is decided per their global strategy for profit maximization. The subsidiaries transfer local funds to the corporate headquarters such as in profit remittance. Furthermore, the corporate headquarters can decide to close-down or reduce their local operations, and determine the source of the material inputs for their production. It is therefore difficult to expect external enterprises to commit to making sustained reinvestments and to utilizing local funds within the locality.

**Figure 1**: Mechanism of the Local Power for Economic Reproduction

Figure 1 illustrates the actual mechanism of the local power for economic reproduction at the country level. The main doers of economic reproduction are the private enterprises. Aside from private enterprises, the government, the farmers, the cooperatives, and non-profit organizations are also considered as doers of economic reproduction. They supply funds to the local economy by their periodical purchase of labor power and the means of production (refer to ① of figure 1) and

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11 Private enterprises supply money to the local economy in order to realize a profit. On the other hand, cooperatives, non-profit organizations, and the government do not supply money to the local economy to realize a profit.

12 The means of production are the raw materials and the means of labor such as machines, factories, infrastructure. They are used by labor in producing goods and services.
start the cycle of economic reproduction. They are considered as the initiators and doers of local economic reproduction to the extent in which they supply the funds to the local economy (Okada, 2005).

The two inputs of production, i.e. the labor power and the means of production, can be sourced from within the local economy (refer to ② and ③) or from the outside (refer to ④ and ⑤). When they are supplied from outside, local funds leak out and go outside the local economy. As mentioned earlier, this weakens the local power for economic reproduction. Meanwhile, the supply of material inputs locally creates an economic ripple effect in the locality.

The labor power transforms the means of production to produce new commodities and services. They are both sold in the local economy such as to the household economy (refer to ⑥), to the government (refer to ⑦), and to other local economic units (refer to ⑧), and also outside the local economy (refer to ⑨ and ⑩). Once they are sold, these commodities and services realize their values as sales. The sales then become local funds for local development when it flows back as profit or as funds for the next cycle’s production to the private enterprises, farmers, cooperatives, and NPOs (refer to ⑪), as wage to the household economy (refer to ⑫), or as tax to the government (refer to ⑬).

The local household economy uses the wage it receives to purchase commodities from local producers (refer to ⑭) and from non-local producers (refer to ⑮) such as through their local subsidiaries or online shopping. They also use a portion to pay tax to the government (refer to ⑯). When they purchase from local producers, the local power for economic reproduction strengthens. If they purchase from non-local producers, it weakens. Lastly, the government provides pension and other financial assistance to the household economy (refer to ⑰).

3. CRITICAL EXAMINATION OF THE PHILIPPINES’S ECONOMIC DEVELOPMENT: LIMITS OF THE EXOGENOUS DEVELOPMENT PARADIGM

As will be discussed in the next section, enterprises in the Philippines whether small and medium enterprises (SMEs) or large enterprises (LEs) depend to a substantial extent on imported material inputs. For example, the enterprises covered in the data set (The World Bank, the Philippines 2015 Enterprises Surveys Data Set) source on average 36% of their total material inputs from overseas. For SMEs, this amounts to 31% of the total material inputs, and for LEs, this amounts to 48%.

**Table 1-1: Philippines’s Imports in 2015**

| Goods                          | Amount in US$ (%) |
|-------------------------------|------------------|
| Capital goods                 | 8,879,028,755 (13) |
| Intermediate goods            | 46,432,895,756 (66) |
| Household consumption goods   | 9,089,832,936 (13) |
| Not classified goods           | 5,751,708,881 (8) |
| Total Imports                 | 70,153,466,328 (100) |

Source: Computed based on the data from DESA/UNSD, United Nations Comtrade Database (http://comtrade.un.org/. [Accessed 2016-08-17]).
The overdependence\textsuperscript{13} on imported material inputs is reflected on the import structure. Table 1-1 shows that the total value of imports in 2015 is US$70 billion. It shows the heavy importation of the means of production in the form of capital goods and intermediate goods. They account 79\% of the total imports value. Between capital goods and intermediate goods, the table shows that the overdependence lies with the intermediate goods or the material inputs for production. These imports are valued at US$46 billion or 66\% of the total imports value. Table 1-2 shows the breakdown of the imported intermediate goods. Parts and accessories of capital goods account for 45\%; processed industrial supplies (not elsewhere specified) account for 33\%; primary fuels and lubricants account for 10\%; parts and accessories of transport equipment account for 4\%; primary food and beverages for industry account for 3\%; processed food and beverages for industry account for 3\%; primary industrial supplies (not elsewhere specified) account for 2\%; and processed fuels and lubricants excluding motor spirit account for 1\%.

\begin{table}[h]
\centering
\caption{Breakdown of Intermediate Goods}
\begin{tabular}{|l|c|}
\hline
\textbf{Parts and accessories of capital goods (except transport equipment)} & 20,889,161,325 \\
& (45) \\
\hline
\textbf{Industrial supplies nes, processed} & 15,455,265,727 \\
& (33) \\
\hline
\textbf{Fuels and lubricants, primary} & 4,627,290,856 \\
& (10) \\
\hline
\textbf{Parts and accessories of transport equipment} & 1,790,674,696 \\
& (4) \\
\hline
\textbf{Food and beverages, primary, mainly for industry} & 1,205,282,616 \\
& (3) \\
\hline
\textbf{Food and beverages, processed, mainly for industry} & 1,167,555,305 \\
& (3) \\
\hline
\textbf{Industrial supplies nes, primary} & 968,221,443 \\
& (2) \\
\hline
\textbf{Fuels and lubricants, processed (other than motor spirit)} & 329,443,788 \\
& (1) \\
\hline
\textbf{Total Value of Intermediate Goods} & 46,432,895,756 \\
& (100) \\
\hline
\end{tabular}
\end{table}

Source: Computed based on the data from DESA/UNSD, United Nations Comtrade Database (http://comtrade.un.org/). [Accessed 2016-08-17]).

\textsuperscript{13} Overdependence is being used here to mean that production and consumption use a substantial amount of imported inputs contributing to the chronic trade deficit.
Meanwhile, figures 2-1 and 2-2 show the trade balance of the Philippines from the time it attained political independence in 1946. The figures show that between 1946 and 2014 the country experienced trade surplus only five times (in 1959, 1963, 1973, 1999 and 2000). What this means is that the country’s trade deficit is chronic and its overdependence on imports is persistent. As will be discussed later in the section, while the government has made many changes in its economic policy to address this problem, these policies were not effective in changing the structural propensity to consume more than it produces (Lambino, 2011).

The country continues to depend on the importation of the means of production especially material inputs to sustain its production. However, by depending on imported means of production, the local power for economic reproduction weakens, and the economic reproduction contracts.

Due to the seriousness and persistence of the leakage, the country has gone through several balance of payments crises from the time it attained political independence. The country first experienced a balance of crisis in 1949. The large inflow of American-made goods under the 1946 Philippine Trade Act (Intal, & Power, 1990; Ofreneo, 1995; Lambino, 2015) caused massive trade deficit (figure 2-2). As a response, the government adopted import substitution industrialization. However, import-substituting industries continued to be highly dependent on imported local inputs (Sicat, Arcelo, & Reantaso, 1968). In 1959 or 10 years after the first one, it again went through a balance of payments crisis. This time, the government understood the problem as being caused by the overvaluation of the currency (Sicat, Arcelo and Reantaso 1968). Accordingly, it took the measures of adopting foreign exchange decontrol and trade liberalization in 1962. However, the policy did not balance the trade. In 1969 or 10 years after the second crisis, the country went through another balance of payments crisis as imports surged after economic decontrol and the trade balance worsened (figure 2-2). As measures to overcome the problem of balance of payments, the government adopted a committed policy of acquiring foreign money through the entry of foreign direct investment (FDI), and external debt, and through the export of commodities and labor power. However, in 1979 or after another 10 years, the country experienced its fourth balance of payments crisis.

14 The paper uses the concept of consumption more broadly to include household consumption, fixed investments, intermediate consumption, and government spending.

15 While its discussion is not part of the paper’s scope, the contraction of economic reproduction is leading to the migration of Filipinos to work overseas. Around 10% of Filipinos live overseas, and their remittance accounts around 8% of the country’s GNI (Lambino, 2015).
The crisis was concluded politically in 1986 with the collapse of the Fourth Philippine Republic. The paper discusses two of the policies that the government adopted to overcome the problem of chronic trade deficit as they have consequence to the local power of economic reproduction. These are the acquisition of external debt, and the attraction of FDI.

Figure 3: External Debt and External Debt Service (amount and percentage to GNI)

External debt has been an important means for the country to acquire the hard currency to be used for the purchase of imported means of production. Figure 3 shows how the amount of external debt ballooned. In 2014, the external debt has amounted to US$78 billion or 23% of the country’s GNI. In 2014, the external debt has amounted to US$78 billion or 23% of the country’s GNI.

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16 The economic crisis in the Philippines that started in 1979 was compounded by the international financial crisis, and by the capital flight from the country as a result of domestic political instability. The international financial crisis was triggered by the Mexican near-default in 1982. On the other hand, the capital flight from the country was triggered by the assassination of the sitting president’s main rival in August 1983. In October 1983, the country experienced the worst crisis of balance of payments in its post-independence history.

17 The people and the economy suffered severely through the crisis. Since household consumption and material inputs were dependent on imports, the currency devaluation and the imposition of imports control made commodities scarce triggering an inflation reaching more than 50% in 1984. In addition to the increased curtailment of civil rights and violation of human rights from the 1970s, the frustration of the people towards the government exploded after widespread electoral fraud that marred the elections in 1986 leading to the ousting of the sitting president and overthrowing of the Fourth Republic.

18 The country has become less vulnerable to the balance of payments crisis since 2003 at least up to the time of the paper’s writing as it has achieved continuous current account surplus. This has become possible due to the remittances from overseas Filipino workers and service exports under business process outsourcing. While the government promote these, they are also causing social problems and personal difficulties. For instance, the overseas Filipinos are separated from their families in the Philippines and are facing numerous suffering as migrant workers (also refer to Lambino, 2015). On the other hand, it has been reported that many workers in business process outsourcing are suffering from insomnia (48%) and fatigue (54%) (GMA News Online website).
the same year, the local funds that amounted to 2% of the GNI leaked out as debt service. It recorded the highest proportion of external debt to GNI in 1986 when it amounted to 99% of the GNI. The year after, 11% of the GNI leaked out as debt service. This happened during the economic crises that while the people were suffering from the serious shortage of goods, the government tightened the budget leading to a spiral of suffering experienced by the people.

To address the chronic trade deficit, another policy that the government adopted is the policy to attract FDI. From the point of view of the local power for economic reproduction, there are at least two serious problems regarding this policy.

One is the propensity of foreign-owned enterprises to use material inputs from overseas. Based on computation from *the Philippines 2015 Enterprise Survey Data Set*, they source an average of 62% of their material inputs from overseas as compared to 29% for locally-owned enterprises. This means that the inflow of FDI comes with the outflow of local funds for the importation of the necessary material inputs.

**Figure 4: FDI and Investment Income**

Source: The World Bank, World Development Indicators and the Central Bank of the Philippines (http://www.bsp.gov.ph/). [Accessed 2016-07-13].

Another problem from the viewpoint of the local power for economic reproduction is that FDI inflow comes with an expected subsequent profit remittance.

Figure 4 shows that FDI has been increasing since the enactment of the Investment Incentives Act in 1967 and the Exports Incentives Act in 1970. Net FDI inflow increased from US$22 million in 1971 to US$5.7 billion in 2015. At the same time, the increasing net FDI inflow came in *pari passu* with the increasing investment income outflow (refer to test 1 in the appendix). The outflow increased from US$2 billion in 1985 to US$5.4 billion in 2015. It should be noted that between 1985 and 2015, based on the data there were only six times when the net FDI inflow was higher than investment income outflow as compared to 25 times when the outflow was higher than the FDI inflow.

Many research studies have pointed out that the corporate headquarters of transnational corporations decide on what to do with the income from their investments (e.g. Lambino, 2010) based on their global strategy to maximize profit. To realize this, they remit the profit to the corporate headquarters often located in global cities.

The global strategy of transnational corporations is not necessarily aligned with the local needs in their production sites. Many cases have been reported in which transnational corporations closed-down and transferred their production sites when opportunities arose elsewhere for them to
realize more profit. In this light, it is difficult to expect these corporations to have the commitment to make sustained utilization of their income in the local economy. For as long as investments are transitional and not embedded in the local economy, it is not reasonable to expect for the local power for economic reproduction to be strengthened (Okada, 2005).

Due to the country’s overdependence of production to imported material inputs (to be discussed more in the next section), local funds continue to leak out. What is worse from the viewpoint of the local power for economic reproduction is that the government’s economic policies of acquiring external debt and promoting FDI inflow as measures to address the chronic trade deficit are further weakening the local power for economic reproduction. These measures have advanced the continuous outflow of local funds for debt servicing and profit remittance.

If the funds were to circulate within the local economy instead of leaking out they would have provided the local people with opportunities for employment and human development. These would have a ripple effect in the local economy, and would have further strengthened the local power for economic reproduction. Consequently, more income would be generated by the local economy.

In summary, the section made the following points. The country’s overdependence on imported material inputs has remained unchanged despite the numerous adjustments and changes in government’s economic policy. The strengthening the local power for economic reproduction may be an important task for the government to promote economic development. A way is to adopt policies that would increase the local content of production in the country. The next section compares the local material content of production by small and medium enterprises (SMEs) with that of large enterprises (LEs).

4. SMEs AND THE LOCAL POWER FOR ECONOMIC REPRODUCTION IN THE PHILIPPINES

This section examines the role of SMEs in the Philippine economy from the perspective of the local power for economic reproduction. It looks at SMEs’ sourcing of their material inputs and compares this with that of large enterprises’ (LEs) with the understanding that the sourcing of material inputs locally creates local economic ripple effect and contributes more in increasing the local power for economic reproduction.

The data set comes from the Philippines 2015 Enterprise Surveys. The data was collected through a survey that was conducted on behalf of the World Bank between November 2014 and May 2016 in the Philippines. The survey was a firm-level survey of the country’s enterprises. The sample was selected using stratified random sampling. Three levels of stratification were used: industry, establishment size, and region. Under industry stratification, there were seven categories for manufacturing, and two categories for services sectors. Under size stratification, the enterprises were categorized as small when they have 5 to 19 employees, medium when they have 20 to 99 employees, and large when they have 100 or more employees. The regions covered were Manila.

19 Enterprise Surveys (http://www.enterprisesurveys.org/). [Accessed 2016-07-19]), The World Bank.
20 The manufacturing categories were food and beverages, garments, chemicals, rubber and plastics, fabricated metal, electronic products, other manufacturing. On the other hand, the services categories were the retail and other services.
21 The survey’s definition for establishment size of SMEs differs with that of the Philippine government’s. The government categorizes establishments into micro, small, medium, and large enterprises. Per the government’s definition, the micro-scale enterprises employ 1 to 10; the small-scale enterprises employ 10 to 99; the medium scale enterprises employ 100 to 199; and the large-scale enterprises employ not less than 200.
22 The Enterprise Survey confuses the territorial definitions of Manila, Metro Manila, and the National Capital Region (NCR). It is actually referring to Manila when it indicates “Metro Manila.” Based on Presidential Decree No. 940 in 1976, Metropolitan Manila or Metro Manila is proclaimed as the seat of government with Manila as the capital (Lambino, 2010), and consequently Metro Manila is the country’s National Capital Region. The paper corrects this and uses Manila when the Enterprise Survey uses Metro Manila.
the rest of Metro Manila, Metro Cebu, Central Luzon, and Calabarzon. The total sample was 1,335 enterprises: 949 SMEs and 386 LEs. Table 2 is a summary of the breakdown of the samples by industry, by size, and by region.  

Table 2: Sample Frame of the Philippines 2015 Enterprise Survey

| Industry                | Food Products | Wearing Apparel | Chemical Products | Rubber and Plastic Products | Fabricated Metal | Electronic Products | Other Manufacturing | Retail Trade | Other Services | Total |
|-------------------------|---------------|-----------------|-------------------|-----------------------------|-----------------|---------------------|---------------------|-------------|--------------|-------|
| Manila                  | 4             | 9               | 4                 | 6                           | 6               | 4                   | 5                   | 9           | 6            | 123   |
| Small                   | 12            | 15              | 18                | 15                          | 15              | 13                  | 25                  | 15          | 24           | 421   |
| Medium                  | 13            | 15              | 26                | 22                          | 21              | 14                  | 24                  | 10          | 15           | 202   |
| Large                   | 8             | 10              | 6                 | 8                           | 16              | 10                  | 8                   | 5           | 8            | 249   |
| Rest of Metro Manila    |               |                 |                   |                             |                 |                     |                     |             |              | 350   |
| Small                   | 10            | 9               | 8                 | 8                           | 8               | 14                  | 6                   | 6           | 8            |       |
| Medium                  | 13            | 4               | 8                 | 6                           | 6               | 7                   | 1                   | 6           | 1           |       |
| Large                   | 13            | 6               | 10                | 3                           | 5               | 10                  | 8                   | 5           | 8            |       |
| Metro Cebu              |               |                 |                   |                             |                 |                     |                     |             |              |       |
| Small                   | 8             | 10              | 6                 | 8                           | 16              | 10                  | 8                   | 6           | 6            |       |
| Medium                  | 8             | 15              | 12                | 10                          | 14              | 11                  | 7                   | 6           | 6            |       |
| Large                   | 14            | 7               | 4                 | 7                           | 2               | 10                  | 6                   | 6           | 9            |       |
| Central Luzon           |               |                 |                   |                             |                 |                     |                     |             |              |       |
| Small                   | 13            | 11              | 17                | 8                           | 14              | 13                  | 8                   | 12          | 11           |       |
| Medium                  | 9             | 13              | 19                | 18                          | 22              | 18                  | 9                   | 7           | 10           |       |
| Large                   | 14            | 16              | 11                | 23                          | 16              | 17                  | 7                   | 10          | 6            |       |
| Calabarzon              |               |                 |                   |                             |                 |                     |                     |             |              |       |
| Small                   | 13            | 11              | 17                | 8                           | 14              | 13                  | 8                   | 12          | 11           |       |
| Medium                  | 9             | 13              | 19                | 18                          | 22              | 18                  | 9                   | 7           | 10           |       |
| Large                   | 14            | 16              | 11                | 23                          | 16              | 17                  | 7                   | 10          | 6            |       |
| Total                   | 157           | 149             | 158               | 159                         | 155             | 157                 | 131                 | 126         | 143          | 1335  |

Source: The World Bank, the Philippines 2015 Enterprise Surveys, (http://www.enterprisesurveys.org/). [Accessed 2016-07-19]), 2015.

Using the data set from the Philippines 2015 Enterprise Surveys, the paper examines the local sourcing of material inputs for SMEs and LEs. This is to determine whether there is significant difference between SMEs and LEs in terms of the local sourcing of material inputs. The description of the statistical test employed and the statistical test results are listed in the appendix.

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23 Regarding the data, to be noted are the following. One: The survey only covers enterprises in Manila, the rest of Metro Manila, Metro Cebu, Central Luzon, and Calabarzon. These compose the economic and industrial centers of the country (see Lambino, 2010; Lambino, 2011). Consequently, the results of data analysis are biased towards the situation in these regions. Two: The question on the source of material inputs only covers the manufacturing sector. Consequently, the results of data analysis are biased towards the situation in this sector. Three: The survey does not cover all the industries, and only covers the manufacturing and the services sectors.
Figure 5 shows the histograms on the extent in which SMEs and LEs source their material inputs locally. Ninety-two LEs or 32% of the total source at least 90% of their material inputs locally. Fifty-five LEs or 19% source less than 10% of their material inputs locally. On the other hand, 381 SMEs or 55% of the total source at least 90% of their material inputs locally. Ninety-five SMEs or 14% of the total source less than 10% of their material inputs locally. From the data set, 50 LEs or 17% do not use any material inputs from local sources as compared to 81 establishments or 12% for SMEs. On average, while LEs source 52% of their material inputs locally, SMEs source 69% (refer to test 2 in the appendix). The histograms show that SMEs source their material inputs locally more than LEs (refer to test 2 for the test result of the statistical difference).

To summarize, we can say that SMEs source more material inputs locally, and based on the local sourcing of material inputs, they contribute more in increasing the local power for economic reproduction than LEs.
Figure 6: Local Material Inputs of SMEs by their Ownership Type

The histograms in figure 6 show a comparison between foreign-owned SMEs and locally-owned ones on the extent in which they source their material inputs locally. Out of the 89 foreign-owned SMEs, 40 establishments or 45% of the total use less than 10% of their material inputs from local sources. On the other hand, 358 locally-owned SMEs or 60% use at least 90% of their material inputs from local sources. From the data set, 34 foreign-owned SMEs or 38% do not use any material input from local sources. On the other hand, 344 of these establishments or 58% use 100% of their material inputs from local sources. On average, while foreign-owned SMEs source only 37% of their material inputs locally, locally-owned SMEs source 74% locally (refer to test 3). The histograms show that locally-owned SMEs tend to source their material inputs locally more than foreign-owned ones (refer to test 3 in the appendix for the statistical test).

Further tests reveal the following about SMEs when compared to LEs. One: Locally-owned SMEs use local material inputs more than locally-owned LEs (refer to test 4 in the appendix). On average, locally-owned SMEs use 74% of their material inputs from local sources as compared to 60% for locally-owned LEs (test 4). Two: Foreign-owned SMEs do not use local material inputs more compared to foreign-owned LEs (refer to test 5 in the appendix). On average, foreign-owned SMEs’ use of 37% of local material inputs is even less than the foreign-owned LEs’ use of 38% (test 5).

To summarize, from the perspective on the sourcing of material inputs, locally-owned SMEs use more local material inputs, and therefore contribute more in increasing the local power for economic reproduction than those foreign-owned. When compared to LEs, SMEs strengthen the local power for economic reproduction when the enterprises are locally-owned but not when they are foreign-owned.
Figure 7: Local Material Inputs of SMEs by their Major Market

Source: The World Bank, *the Philippines 2015 Enterprises Surveys*, 2015.

Note: The histograms on the left refer to the case of exports-focused SMEs, and those on the right refer to the case of local-market focused SMEs.

Figure 7 shows a comparison between exports-focused SMEs and local market-focused SMEs on the extent they source their material inputs locally. Thirty-three SMEs or 34% of the total number of exports-focused SMEs use less than 10% of their material inputs from local sources. Contrastingly, only 11% of the local market-focused SMES (62 SMEs out of 589 SMEs) use the same amounts. Additionally, only 36 SMEs or 37% of the total number of exports-focused SMEs use at least 90% of their material inputs from local sources, and 341 SMEs or 58% of the total number of local market-focused SMEs use the same amounts. On average, while exports-focused SMEs only use 48% of their material inputs from local sources, local market-focused SMEs use 73% (refer to test 6 in the appendix). The histograms show that local market-focused SMEs source their material inputs locally more than exports-focused SMEs (refer to test 6 for the statistical test).

Further tests reveal the following. One: Local market-focused SMEs use more local material inputs than local market-focused LEs (refer to test 7 in the appendix for the statistical test). On average, these SMEs use 73% of their material inputs from local sources as compared to 64% for these LEs (refer to test 7). Two: Exports-focused SMEs use more local material inputs than exports-focused LEs (refer to test 8 in the appendix for the statistical test). On average, these SMEs use 48% of their material inputs from local sources as compared to 34% for these LEs (refer to Test 8).

From the perspective of the sourcing of material inputs, local-market focused SMEs use more local material inputs, and therefore contribute more in increasing the local power for economic reproduction than those exports-focused. When compared to LEs, SMEs increase the local power for economic reproduction whether they are local-market focused or exports-focused.

In summary, the results are the following. One: SMEs contribute more in strengthening the local
power for economic reproduction than LEs. Two: Locally-owned SMEs contribute more in strengthening the local power for economic reproduction than foreign-owned SMEs. Additionally, SMEs contribute more than LEs when the enterprises are locally-owned but not when they are foreign-owned. Three: Local market-focused SMEs (i.e., SMEs which focus on the local market) contribute more in strengthening the local power for economic reproduction than exports-focused SMEs (i.e., SMEs which focus on exporting their products). Furthermore, SMEs contribute more than LEs irrespective of whether the enterprises are local market-focused or exports-focused.

5. CONCLUDING REMARKS

The paper has the following points.

The paper has introduced the Okada’s approach of the local power of economic reproduction. It is an approach that seeks to promote active local development. Active local development is the process in which it is contingent for the local people and the locality to be the doers of the action towards the fulfillment of their requirements and aspirations. The approach of local power for economic reproduction is a tool in analyzing the local and regional economy and in designing local development policy. Under this approach, the local power for economic reproduction is the power that determines the quality and the scale of economic reproduction. Based on the magnitude and quality of the local power, the economic reproduction in the locality can remain simple, can contract, or can expand. Furthermore, this local power strengthens when local funds remain and circulate more within the local economy. This happens when the production inputs and the labor power are increasingly supplied from within the local economy.

The paper has shown the country’s structural propensity of using imported means of production by enterprises as reflected in the chronic trade deficit. This has caused an explosion of external debt, and a continuous leakage of local funds. Furthermore, the continuous leakage of local funds for debt servicing is weakening the local power for economic reproduction. The paper has also shown that while the attraction of FDI has come with increasing net inflow of FDI, the increasing net inflow has come in pari passu with an increasing outflow of investment income. The paper has pointed out that the investment income outflow is even oftentimes higher than the net FDI inflow. The outflow of local funds and therefore the current form of the policy attracting FDI are further weakening the country’s local economic reproduction power.

The paper has established that small and medium-sized enterprises (SMEs) contribute more to the local power for economic reproduction than large enterprises (LEs). Compared to LEs, SMEs source their material inputs more from within the local economy. Furthermore, locally-owned SMEs contribute more to the local economic reproduction power than foreign-owned SMEs; and SMEs use more local material inputs than LEs for locally-owned enterprises but not when the enterprises are foreign-owned. Lastly, local-market focused SMEs contribute more to the local power for economic reproduction than exports-focused SMEs; and SMEs contribute more than LEs irrespective of whether the enterprises are local market-focused or exports-focused.

The analytical results of the paper suggest the need to increase the local content of production, and to strengthen the local power for economic reproduction. The results of the paper’s analyses suggest that a possible way for the government is to adopt a development policy that gives preferential treatment to SMEs and one that promotes in increasing the local content of economic production.

6. APPENDIX: STATISTICAL TESTS

6.1 On Foreign Direct Investment and Investment Income

Test 1: The paper uses cross correlation to assess the relationship between foreign direct investment and investment income using annual data between 1985 and 2015. The cross correlation reveals that
foreign direct investment and investment income has a moderate negative correlation of -0.66 when there is no time lag.

Decision: There is a moderate correlation between FDI inflow (positive values of FDI) and investment income outflow (negative values of investment income).

| LAG | CORR |
|-----|------|
| -10 | 0.1953 |
| -9  | 0.0972 |
| -8  | -0.0847 |
| -7  | -0.1690 |
| -6  | -0.0408 |
| -5  | 0.0159 |
| -4  | 0.0525 |
| -3  | -0.2000 |
| -2  | -0.4518 |
| -1  | -0.5312 |
| 0   | -0.6630 |
| 1   | -0.5446 |
| 2   | -0.3874 |
| 3   | -0.3077 |
| 4   | -0.2520 |
| 5   | -0.2310 |
| 6   | -0.1765 |
| 7   | -0.1329 |
| 8   | -0.1095 |
| 9   | -0.1077 |
| 10  | -0.1050 |

### 6.2 On the source of material inputs and employment

Using the case of Japan, Okada (2013) has argued that what support the local economy are mostly the SMEs in terms of their economic contribution and employment generation. Here, the paper checks the applicability of his arguments in the Philippines by using statistical analysis on SMEs and LEs regarding the sourcing of their material inputs. The paper examines whether SMEs contributes more than LEs for active local development by comparing the sourcing of their material inputs. It examines the data set from the Philippines 2015 Enterprise Survey on whether there are statistical differences.

The paper uses Welch’s t test to find out whether there is a statistical significance that SMEs source their material inputs locally more than LEs, and to examine SME characteristics that show statistical significance of having more local material inputs. While the histograms of the samples do not show a normal distribution, statistical research has shown that the student t test can be used to examine the distribution of sample mean even when the distribution of the random variable is not normal (Newbold, Carlson, & Thorne, 2013). In order not to assume equal variances for the two samples, the paper uses Welch’s t test instead of the student t test (Ruxton, 2006).

Okada (2005; 2013) argues that establishments embedded in the locality contribute more in the local power for economic reproduction. He points out that SMEs tend to participate more in local affairs compared to large enterprises such as in reproducing local traditional culture. Due to their size, they are affected by the local social and economic conditions more than LEs, and are expected to have more motivation for the local social and economic conditions to be improved. Locally-owned are also expected to be more embedded as the owners in general live in the locality and according to the local conditions. Establishments that focus on the local-market are more affected by the local conditions such as effective demand in the market than those that focus on exporting their products. For these reasons, the paper uses one-tailed test to examine that locally-embedded establishments contribute more in the local power for economic reproduction in terms of material inputs.

To be noted is that the questionnaire on the source of material inputs in the Philippines 2015...
enterprise survey is only applied to the manufacturing sector (total of 1066 establishments).

**Test 2:** Welch’s t test on local material inputs by enterprise size

| Group | Obs | Mean    | Std. Err. | Std. Dev. | [95% Conf. Interval] |
|-------|-----|---------|-----------|-----------|----------------------|
| LEs   | 290 | 52.0931 | 2.25042   | 38.32327  | 47.66381 - 56.52239  |
| SMEs  | 693 | 69.2136 | 1.472324  | 38.7564   | 66.32298 - 72.10415  |

**Test 3:** Welch’s t test on local material inputs by SME ownership

| Group | Obs   | Mean    | Std. Err. | Std. Dev. | [95% Conf. Interval] |
|-------|-------|---------|-----------|-----------|----------------------|
| domestic | 597   | 73.99497| 1.481511  | 36.19863  | 71.08536 - 76.90459  |
| foreign | 89    | 37.0225 | 4.310888  | 40.66883  | 28.45549 - 45.58946  |

**Test 3:** Welch’s t test on local material inputs by SME ownership

| Group | Obs   | Mean    | Std. Err. | Std. Dev. | [95% Conf. Interval] |
|-------|-------|---------|-----------|-----------|----------------------|
| domestic | 686   | 36.9725 | 4.558358  | 27.93916  | 46.00584             |
| foreign | 89    | 69.1983 | 1.482244  | 38.82183  | 66.288 - 72.1085    |

H0: Material inputs or supplies of local origin are equal in SMEs and in LEs.
H1: Material inputs or supplies of local origin are greater in SMEs than in LEs.
Decision: Very strong evidence against the null hypothesis in favor of the alternative. Material inputs of local origin were greater in SMEs than in LEs.
Test 4: Welch’s t test on the local material inputs between locally-owned SMEs and locally-owned LEs

**Two-sample t test with unequal variances**

| Group   | Obs  | Mean   | Std. Err. | Std. Dev. | [95% Conf. Interval] |
|---------|------|--------|-----------|-----------|----------------------|
| Loc. LE | 183  | 59.75956 | 2.714333  | 36.71882  | 54.40396 - 65.11517  |
| Loc. SME| 597  | 73.99497 | 1.481511  | 36.19863  | 71.08536 - 76.90459  |
| Combined| 780  | 70.65513 | 1.317514  | 36.79615  | 68.06883 - 73.24143  |
| diff    | -14.23541 | 3.092326 | -20.32083 | -8.149992 |

**H0:** Material inputs of local origin are equal in locally-owned SMEs and in locally-owned LEs.

**H1:** Material inputs of local origin are greater in locally-owned SMEs than in locally-owned LEs.

**Decision:** Very strong evidence against the null hypothesis in favor of the alternative. Material inputs of local origin were greater in locally-owned SMEs than in locally-owned LEs.

Test 5: Welch’s t test on the local material inputs between foreign-owned SMEs and foreign-owned LEs

**Two-sample t test with unequal variances**

| Group   | Obs  | Mean   | Std. Err. | Std. Dev. | [95% Conf. Interval] |
|---------|------|--------|-----------|-----------|----------------------|
| For. LE | 99   | 38.49495 | 3.774142  | 37.55224  | 31.00529 - 45.98461  |
| For. SME| 89   | 37.02247 | 4.310888  | 40.66883  | 28.45549 - 45.58946  |
| Combined| 188  | 37.79787 | 2.841462  | 38.96017  | 32.19243 - 43.40331  |
| diff    | 1.472478 | 5.729564 | -9.832556 | 12.77751 |

**H0:** Material inputs of local origin are equal in foreign-owned SMEs and in foreign-owned LEs.

**H1:** Material inputs of local origin are greater in foreign-owned SMEs than in foreign-owned LEs.

**Decision:** No evidence against the null hypothesis in favor of the alternative. We fail to reject the null hypothesis.
Test 6: Welch’s t test on local material inputs between local market-focused SMEs and exports-focused SMEs
[“International market” group is composed of SMEs whose main product is sold mostly in the international market; “local market” is composed of SMEs whose main product is sold mostly in the local market]

| Group        | Obs  | Mean  | Std. Err. | Std. Dev. | [95% Conf. Interval] |
|--------------|------|-------|-----------|-----------|----------------------|
| Int. Mar     | 97   | 48.29997 | 4.491955 | 44.24062  | 39.38251 - 57.21543 |
| Loc. Mar     | 589  | 72.51273 | 1.517523 | 36.82924  | 69.53231 - 75.49316 |
| combi ned    | 686  | 69.08892 | 1.483585 | 38.85747  | 66.176 - 72.00184   |
| diff         |      | -24.21376 | 4.741364 | -33.60183 | -14.8257            |

\[ \text{diff} = \text{mean(Int. Mar)} - \text{mean(Loc. Mar)} \]

\[ t = -5.1069, \text{Welch's degrees of freedom} = 119.383 \]

H0: \( \text{diff} = 0 \)

H1: \( \text{diff} < 0 \)

Decision: Very strong evidence against the null hypothesis in favor of the alternative. Material inputs of local origin were greater in local market-focused SMEs than in exports-focused SMEs.

Test 7: Welch’s t test on local material inputs between local market-focused SMEs and local market-focused LEs

| Group        | Obs  | Mean  | Std. Err. | Std. Dev. | [95% Conf. Interval] |
|--------------|------|-------|-----------|-----------|----------------------|
| locm LEs     | 172  | 64.07558 | 2.580237 | 33.83949  | 58.98236 - 69.1688   |
| locm SME     | 589  | 72.51273 | 1.517523 | 36.82924  | 69.53231 - 75.49316 |
| combi ned    | 761  | 70.60578 | 1.316797 | 36.32546  | 68.02079 - 73.19077  |
| diff         |      | -8.437152 | 2.993409 | -14.32783 | -2.546474           |

\[ \text{diff} = \text{mean(locm LEs)} - \text{mean(locm SME)} \]

\[ t = -2.8186, \text{Welch's degrees of freedom} = 300.759 \]

H0: \( \text{diff} = 0 \)

H1: \( \text{diff} < 0 \)

Decision: Strong evidence against the null hypothesis in favor of the alternative. Material inputs of local origin were greater in local market-focused SMEs than in local market-focused LEs.

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Test 8: Welch’s test on material inputs of local origin between exports-focused SMEs and exports-focused LEs.

| Group    | Obs | Mean   | Std. Err. | Std. Dev. | [95% Conf. Interval] |
|----------|-----|--------|-----------|-----------|----------------------|
| LEs      | 114 | 34.2631| 3.51537   | 37.53395  | 27.29856 – 41.22775  |
| SMEs     | 97  | 48.29897| 4.491955  | 44.24062  | 39.38251 – 57.21543  |

combined 211 | 40.71564 | 2.840104 | 41.2549 | 35.11687 | 46.31441 |

\[ \text{diff} = \text{mean(LEs)} - \text{mean(SMEs)} \]
\[ t = -2.4607 \]
\[ \text{Welch's degrees of freedom} = 191.082 \]

H0: Material inputs of local origin are equal in exports-focused SMEs and in exports-focused LEs.
H1: Material inputs of local origin are greater in exports-focused SMEs than in exports-focused LEs.

Decision: Strong evidence against the null hypothesis in favor of the alternative. Material inputs of local origin were greater in exports-focused SMEs than in exports-focused LEs.

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