

Duration of export relationships of Philippine MSMEs

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The micro, small, and medium enterprises (MSMEs) play a significant role in a country's economic development. In the Philippines, almost all (99.5%) existing firms is composed of MSMEs, employing 62 percent of the country's workforce. The development of MSMEs therefore has been a priority policy agenda both at the national and international levels.

During the Asia-Pacific Economic Cooperation conference in 2015 hosted and chaired by the Philippines, the need to create an enabling environment conducive to MSME development and integration in the international market was highlighted (APEC 2015). The same was echoed in the Leaders Declaration of the Association of Southeast Asian Nations (ASEAN) during its 50th anniversary celebration (ASEAN 2017).

Given this prioritization, it is important to have a deeper understanding of the behavior of MSMEs in the process of internationalization or participation in the global market. A growing number of research studies have been conducted that deal with the subject of MSME development.¹ However, only a

few literature is available on the challenges faced by MSMEs in breaking into the international market (Raneses 2016), specifically, how many years the Philippine export products continue to be traded in the international market.

This *Policy Note* examines the duration of trade relationships of Philippine MSMEs with ASEAN countries and a number of free trade agreement (FTA) partners. It likewise provides recommendations on what can the government do to enhance greater participation of MSMEs in the global market particularly by way of increasing the duration of the trading relationships of MSMEs.

Trade relationship

Trade and trading relationship, though interrelated, are two different concepts. International trade refers to the act or exchange of goods or services across

In recent years, various international organizations conducted conferences and initiatives that aimed to tackle MSME development, such as APEC Manila 2015; USAID SME Development Program; 31st ASEAN Summit, Manila, 2017; and 51st Annual Board Meeting of the Board of Governors of Asian Development Bank.

international territories. When such exchange is occurring for a continuous period, a trade relationship exists. Trade relationship includes the export of goods to a destination or market but does not necessarily correlate with the volume of exports. Rather, it is a count item. To illustrate, if the Philippines is exporting three items to a trade partner, three trade relationships exist and the count is independent of the actual value of exports of these items.

To determine the survivability characteristics of the MSMEs, it is important to understand the connection between the exported goods with the size characteristics of the firms that produced the goods. Size means whether the firm is categorized as a large firm or MSME. Essentially, the classification of the traded good determines the size of the firm that produced the goods. In turn, the trade duration of each exported good is used as the proxy of the survivability of the firm, either large or MSME, that is linked with the aforementioned exported good. Survivability refers to the duration, measured by the length of time or years, that a trade relationship has been in existence without interruption.

Mapping export product data

The study was carried out in two parts—determining the correspondence of the exported products with the size of the firms that produced those products (i.e., MSMEs or large establishments) and estimating the expected duration of the export relationships between Philippine MSMEs and trade partners. How does one identify whether an exported product came from a small, medium, or large exporting firm? Using correspondence tables, the product classification of each exported product can be linked with the industry that produced those goods. Once the industry is identified, it is a matter of computing the average employment size of that industry to establish whether the firms that produced certain goods are

MSMEs or large ones. This procedure allows the one-to-one mapping of exported products with the size of the firms that produced those products, i.e., MSMEs or large firms.

The duration of export relations of Philippine MSMEs with ASEAN partners was computed through the Kaplan-Meier estimator, a statistical technique in survival analysis. Recall that the duration of trade relationship is the time, measured in years, for which a particular product is continuously exported to a partner-country. Using Kaplan-Meier estimator, the probabilities that trade relationships of exports from the Philippines with a particular partner last over a period of years can then be established. The duration was modeled as a sequence of conditional probabilities that a trade relationship continued after a determined number of period, given that it has already survived for that specific number of period.

For example, the analysis generated the probability that the Philippines will export a particular good, say desiccated coconut, for three continuous years to a particular partner. The technique is used to map the survival rate or duration of continuous exports of particular goods of the Philippines to a specific importing country. The survival rates of exported goods of Philippine MSMEs were derived by filtering the total exported goods of the Philippines by the average firm sizes of the producing sectors. This ‘survivability’ analysis of exports from MSMEs is carried out for each ASEAN partner.

The export data used is the 6-digit Harmonized System (HS) as sourced from Trade Map. The HS codes were then converted to Standard International Trade Classification (SITC) using a correlation table, which, in turn, was further converted to International Standard Industrial Classification (ISIC). Finally, the list generated using ISIC was transformed to one

based on Philippine Standard Industrial Classification (PSIC). Using the Annual Survey of Business and Industry of the Philippines for 2015 (PSA 2015), the average number of employees per sector was correlated with the PSIC code to link the MSME incidence of industries or segments with the survival rates computed in the earlier stages of the research.

Survival analysis

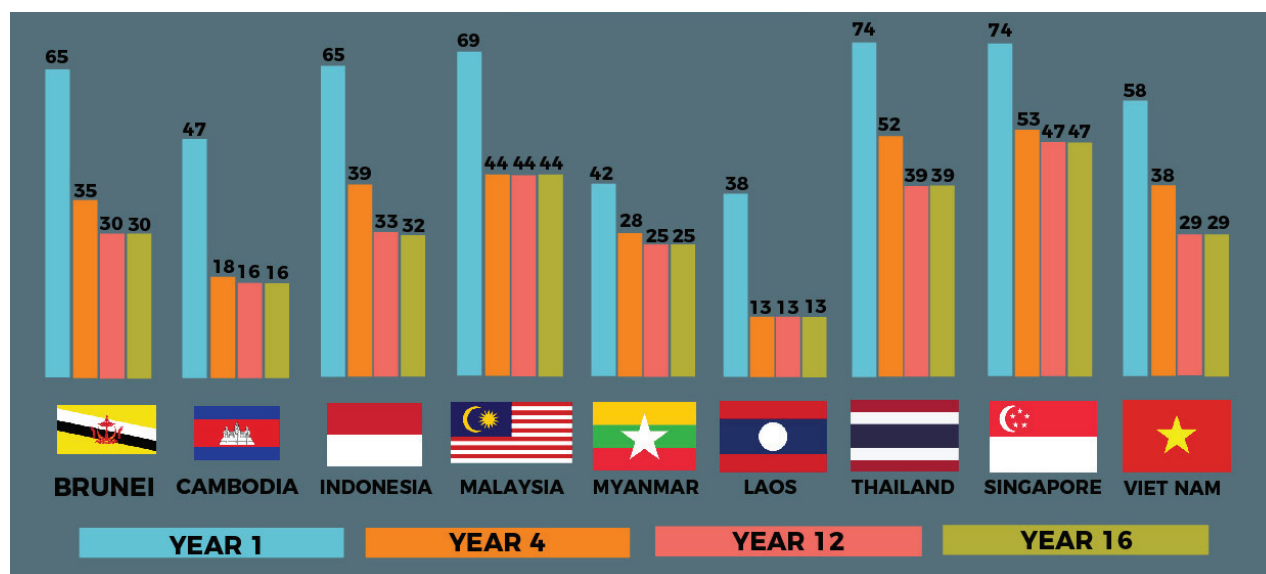
Trade relations data of the identified export items of Philippine MSMEs were utilized in the survival analysis, which was designed to show the conditional probabilities of the duration of export relations arising from MSMEs.

Figures 1, 2, and 3 illustrate the survival analysis of exported goods from Philippine MSMEs to selected ASEAN member-countries, countries with FTAs (Australia, New Zealand, and India), and the East Asian countries (China, Japan, and South Korea), respectively. The results obtained were closely similar to the results of Besedes and Prusa (2006), particularly during the early years of the

trade relationship. Only 64 percent of the trade relationships survived during the first year, which is higher than the average duration (53%) of trade relations with the United States from the study of Besedes and Prusa (2008). There is, however, a disparity among the survival rates with different partners. The survival rate of exported goods from MSMEs to Australia, at 86 percent, is quite high after one year. In contrast, the corresponding rate for Laos is much lower at 38 percent. In addition, the survival rates of products exported by Philippine MSMEs to the original ASEAN members (Indonesia, Malaysia, Thailand, and Singapore) were higher than those observed for the more recent members such as Laos, Myanmar, or Cambodia. However, a noticeable drop in survival rates is recorded in the fourth year of trading. To illustrate, the average survival rate for the sample of countries after four years of trading relationship dropped to 40 percent, a close to 25-percentage points decrease from the rate reported after the first year.

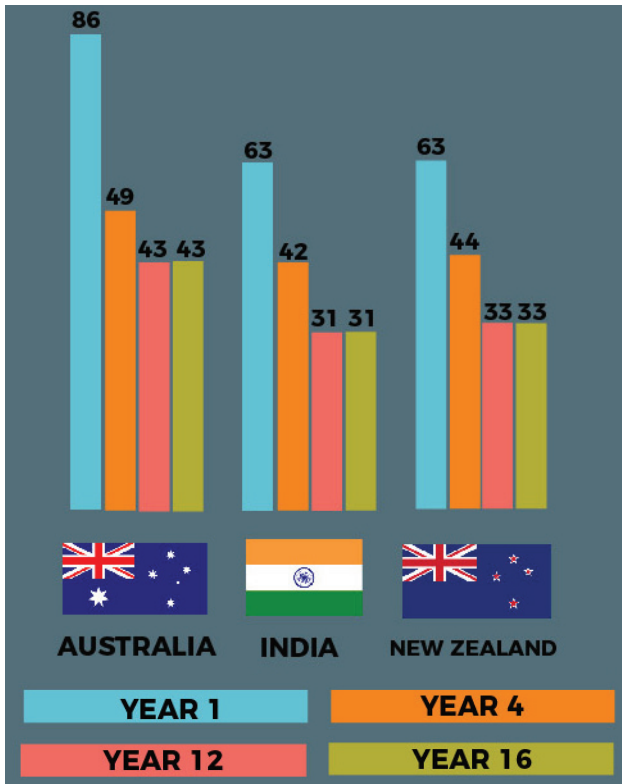
Another significant finding was the sharp decline of the risk of failure after four years of continuous

Figure 1. Survival analysis of Philippine MSME exports to ASEAN countries (in %)



MSME = micro, small, and medium enterprise; ASEAN = Association of Southeast Asian Nations
Source: Authors' computation

Figure 2. Survival analysis of Philippine MSME exports to FTA partners (in %)

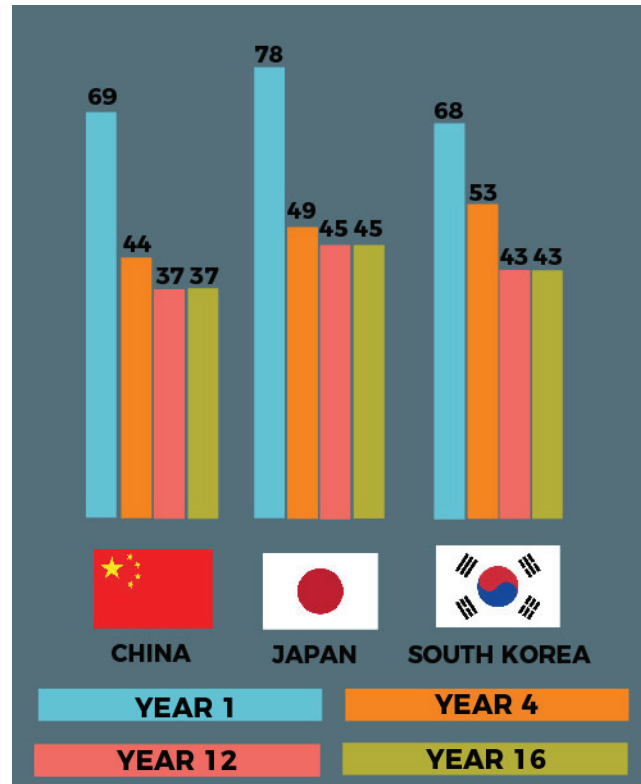


MSME = micro, small, and medium enterprise; FTA = free trade agreement
Source: Authors' computation

exporting. Recall that a large number of trade relationships failed during the first four years. However, beyond four years, the incidences of failure became less prevalent. For example, the exports of Philippine MSMEs to Viet Nam reached a survival rate of 58 percent after one year, but dropped to only 38 percent after four years. Survival rate, however, remained steady at 29 percent after 12 and 16 years. The decline in the rate of failure implied that once a trade relation surpassed a critical period, then there is a higher chance of survival. The critical year is one where subsequent drop in survival rates is not as sharp as the previous ones. This trend was observed in many of the countries in the sample of this study.

Mixed results were obtained on the comparative survival rates of export relationships between ASEAN

Figure 3. Survival analysis of Philippine MSME exports to East Asian countries (in %)



MSME = micro, small, and medium enterprise
Source: Author's Computation

and non-ASEAN partner-countries of the Philippines. Export products traded to Australia exhibited the highest survival rate with almost 86 percent after year one, followed by those traded with Japan with 78 percent. Export goods to Myanmar had the lowest survival rate after year one with only 42 percent of Philippine export products surviving. In the case of long-term survival rate, export products traded to Singapore achieved the highest survival rate after 15 years of trade relations with 47 percent, followed by Japan with 45 percent. Over time, export products to Cambodia and Laos had the lowest survival rate with 16 percent and 13 percent, respectively. For countries considered as long trading partners, e.g., Japan, Thailand, and Malaysia, the survival rate was observed to be higher, with rates reaching up to 60 percent or higher.

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The Philippines has been recognized as a champion of micro, small, and medium enterprises (MSMEs) within the Association of Southeast Asian Nations region. Sadly, even its own enterprises do not seem to survive once they enter international trade. For instance, this study finds that only 6 in every 10 Philippine MSMEs manage to survive after their first year of operation outside the Philippines. This figure further dwindles to less than 4 in every 10 by the end of their fourth year. (Photo by PIDS)

Results indicated that aside from the presence of FTAs, other factors may influence the high survival rate of export products. Although the Philippines established trade agreements with the ASEAN member-countries earlier than non-ASEAN partners, the latter had more extensive trade relationships with the Philippines. Trade relationships of Philippine MSMEs with non-ASEAN partners exhibited better survival rate compared to ASEAN countries. In the long run, established partners shown higher survival rate as high as 40 percent compared with the average of 34 percent.

For new markets such as Cambodia, Laos, and Myanmar, the export products of Philippine MSMEs had low survival rates, with an average rate of 41 percent after year one. This implied that the local firms were still struggling to find the appropriate partners and market adoption to these new partner-countries. The long-term survival rates of Philippine export products to these countries were likewise low at only 16 percent.

Policy implications

This study highlighted the short trade durations of export products from Philippine MSMEs to ASEAN countries, which is consistent with the result of Besedes and Prusa (2006). A large number of trade relations, both MSME exports and total exports, failed after a few years. While the Philippines has established FTAs with ASEAN member-countries at an earlier period compared with non-FTA partners such as Australia and New Zealand, it did not significantly improve the survival rate of Philippine exported products to the ASEAN. The study further showed significant decrease in failure after a threshold period. On the average, the fourth year was critical in the trade duration, where the average decrease in survival rate was lowest, before reaching asymptotic relationship. Contrary to what classical trade theories would suggest, that established trade relationships tend to last long, the overall trade duration of Philippine exports estimated in this study is quite short.

Recommendations

Given the findings, it is important that support from the government be extended to the Philippine MSMEs

exporting products to ASEAN countries and other trade partners, strategically during the identified critical years of export survivability. Similar to the findings of Rauch and Watson (2003) where the process of establishing trade relations had been identified, government support to be provided through the Department of Trade and Industry can also create a sustainable plan for MSMEs during their first four years in the global market. Focus should be directed toward assistance in increasing the capability of the firms, targeted appropriately, to reach larger orders, either through financing or through consolidation with other similar firms that have successfully complied with the product standards required by foreign buyers. These two policy thrusts are complementary to the extent that as the duration of the export activities of MSMEs lengthens there is better chance for them to scale up their activities, essentially facilitating their transformation from small to larger establishments.

Moreover, the survivability analysis can be utilized as an additional monitoring mechanism by government agencies implementing programs that promote MSME development. Results of the survival analysis can support the competitiveness benchmark currently used in monitoring performance of MSMEs. Improvement in export survivability of MSMEs is a good indicator of the effectiveness of government programs and policies, which are aimed at facilitating greater and sustainable participation of Philippine MSMEs in the global markets.

This *Policy Note* is limited to the study on the duration and pattern of trade relationships of Philippine MSMEs with ASEAN member-countries and other trade partners. Thus, further study is recommended to investigate the factors that influence the survivability of Philippine MSMEs and how these factors can successfully contribute to longer duration of Philippine trade relations. 📄

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