

Measuring Exports of Manufacturing Services in Indonesia

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Abstract:

Currently, many countries can participate in producing one product in other countries. Global value chains allow goods sent abroad for processing. This activity is called manufacturing services and they have developed rapidly in many countries. In manufacturing services, the physical input of one company is handed over to other companies for further processing such as processing, assembly, labeling, and packaging.

Countries should measure the exports of manufacturing service values because it is one of the important tools in trade negotiations and trade policies. According to the Manual on Statistics of International Trade in Services (MSITS) 2010, the value of manufacturing services is measured by the fee charged by the processor of goods. When goods produced by manufacturing services are sent back to the owner of goods abroad, those items will be recorded in the Customs Declaration. But in Indonesian Customs Declarations, there was no information about the fee charged and information on ownership changes so it cannot distinguish whether the goods contain manufacturing services or not. So we need to conduct a survey to get the data.

To get the information about the fee of processing goods from abroad, then for the efficiency and reduction in respondent burden, BPS Statistics Indonesia has integrated a variable in the Annual Manufacturing Survey Questionnaire since 2014. The result of the integration survey gives us new information about the value of Indonesian manufacturing services that tended to increase from year to year. In 2014 the share of manufacturing services reached 0.75 percent of the total Indonesian export value and in 2017 it reached 1.60 percent. This result shows that the Indonesian role in global value chains tends to increase. This information is very useful for policymakers, especially in trade policies.

Keywords: integrated survey, services, manufacturing services, GVC

1. Introduction:

Indonesian export commodities - mostly comprise raw materials. Its export earnings thus are strongly influenced by movements in the world commodity prices. Indonesian exports can be increased by industrialization, but the constraints are capital and human resources. If investment and human resources are inadequate, industrialization will proceed slowly. In dealing with these problems, the government can take steps by increasing its role in Global Value Chains (GVCs).

In GVCs businesses divide their operations among multiple firms and geographic spaces, from the design of the product and manufacturing of components to assembly and marketing, creating international production chains. The GVCs can increase efficiency, decrease cost, and speed up the production process. Through GVCs, countries strengthen human resource capacity because they make products together resulting in the transfer of knowledge between countries. By processing of a product by several countries, the production process can be done faster and more efficiently because of more sophisticated technology. By increasing Indonesian participation in GVCs, industrialization in Indonesia is expected to run faster.

Based on Global Value Chain Development Report 2019, forward GVC participation indexes (percent of GDP) in lower middle income countries in 2000 was 10.8, in 2007 was 12.4, and in 2017 was 9.1. And each backward GVC participation indexes (percent of final goods production) in lower middle income country in 2000, 2007, and 2017 were 11.7, 14.2, and 11.8. When countries have the main

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source of raw materials input in the early stages of production, the forward participation ratio is generally higher than backward participation. But countries which have product closer to the final consumer and placed at the final stage of the production chain, the backward participation is higher than forward participation for most countries.

When countries participate in GVC, companies in those countries can participate in producing goods that do not belong to them, the manufacturing services are paid according to agreements made previously, the activity is called manufacturing services on physical inputs owned by others. The value of manufacturing services does not mean the difference between the value of the goods sent for processing and the value of goods received back after the production process – explain why – you can talk about overheads etc.

According to the Manual on Statistics of International Trade in Services (MSITS) 2010, manufacturing services on physical inputs owned by others includes activities such as processing, assembly, labelling and packing that are undertaken by enterprises that do not own the goods. These enterprises are paid a fee by the owner. The ownership of the goods does not change, so no general merchandise transaction is recorded between the processor and the owner. Only the fee charged by the processor is included under this item, although such a fee may include the cost of materials purchased by the processor.

In trade in services, manufacturing services statistics are a key tool in trade negotiations thus countries need to understand and assess their offensive and defensive interests especially in manufacturing. The statistics are also crucial with respect to the modelling of potential effect of specific trade arrangement on domestic economic variables such as production, prices, and employment. The statistics of manufacturing services is very useful to Indonesian policy makers such as the Ministry of Trade and the Ministry of National Development Planning of Indonesia.

The MSITS 2010 states that it may be possible to obtain data of manufacturing services from the International Merchandise Trade Statistics (IMTS) on the movement of goods. When goods produced by manufacturing services are sent back to the owner of goods abroad, those items will be recorded in the Customs Declaration. In Indonesian Customs Declarations, there is no information about the fee charged and information on ownership changes so it cannot distinguish whether the goods contain manufacturing services or not. Due to the lack of data in IMTS, BPS needs to conduct a survey to get the data. This paper aims to provide an overview of how BPS collects information on the manufacturing services statistics.

2. Methodology:

Manufacturing services has a very close relationship with goods for processing. In 2014, Subdirector of Export Statistics conducted a pilot survey about goods for processing in Indonesia. The pilot survey had 127 samples from three provinces. From 127 samples, only 26 documents, that is 20.47 percent could be processed. Because of the low response rate of the pilot survey, Subdirector of Export Statistics could not make a good conclusion of the results from the pilot survey.

In 2015, Subdirector of Export Statistics started to compile information about manufacturing services but only about the fee of processing goods from abroad (export of manufacturing services). Based on the experience in the previous pilot survey, Subdirector of Export Statistics decided to integrate a variable in the Annual Manufacturing Survey Questionnaire 2014 (conducted in 2015). The Annual Manufacturing Survey conducted completely covered all large and medium sized companies that are listed in the BPS industry directory. The variable was put on Part IV, point 15.b. *Manufacturing services received from a foreign country.*

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BAGIAN/PART IV. PENDAPATAN/PENERIMAAN LAIN YANG DITERIMA SELAMA TAHUN 2014 OTHER INCOME RECEIVED DURING 2014

15. Pendapatan dari jasa industri (makloon)/Manufacturing services received

a. Dari dalam negeri/From domestic

b. Dari luar negeri/From a foreign country

Sub Total/Sub Total

| Nilai/Value (Rp) |
|---------------------|
| .000 |
| .000 |
| .000 |

Source: Annual Manufacturing Survey Questionnaire

The first benefit of the variable being integrated in the existing survey is reduced cost. Almost all manufacturing services survey cost is covered by annual manufacturing survey cost, so there is no additional cost for compiling this new variable. The second benefit is reducing respondent burden. When we conducted the pilot survey, we got many complaints from respondents because they had so many questionnaires from BPS to be filled. So, by integrating the variable in the Annual Manufacturing Survey Questionnaire there was no need to fill two questionnaires. The third benefit from the integration is that the response rate is better than if we were to do a separate survey – the experience gained from the pilot survey.

The - variable continues to be integrated into the annual manufacturing, but the data are only available for 2014, 2015, and 2017. In 2016 there was no Annual Manufacturing Survey because BPS conducted the Economic Census. The 2018 data is still being processed.

In 2018, the Export Customs Declaration was upgraded. It now includes a question about manufacturing services. The question is in point 36. *Nilai maklon*. Maklon is the common term of manufacturing services in Indonesia.

| DATA TRANSAKSI EKSPOR | | | |
|------------------------------|---|-----------------------------|---|
| 31. Bank Devisa Hasil Ekspor | : | 34. Freight | : |
| 32. Jenis Valuta | : | 35. Asuransi (LN/DN) | : |
| 33. FOB | : | 36. Nilai Maklon (Jika Ada) | : |

Source: Export Customs Declaration

In future, BPS plans to combine the result of the Annual Manufacturing Survey and the data compiled from the export customs declaration. They will supplement each other. The Annual Manufacturing Survey has some shortcomings such as it cannot be broken down to country destinations and the response rate is not a hundred percent. Manufacturing services data compiled from export declaration also has some weaknesses such as the coverage and the validity. There is one area in Indonesia that is not covered because this area uses different customs declaration document that has no question about manufacturing services. The area is PPFTZ Batam in Kepulauan Riau Province. Furthermore, based on our discussion with Customs, the validity of data about manufacturing services still need to be checked and clarified by the exporter.

3. Result:

Data from Annual Manufacturing Survey

Table 1 describes the result of the Annual Manufacturing Survey 2014, 2015, and 2017. From the table, it can be clearly seen that the total manufacturing services to total export value (FOB) tended to increase. In 2014, the total manufacturing services was US\$1,324.7 million which doubled in 2017 and reached US\$2,701.6 million. The share of total manufacturing services to total export FOB also continued to increase. In 2014 the share was 0.75 percent, then it doubled in 2015 to 1.51 percent and increased in 2017 to 1.60 percent.

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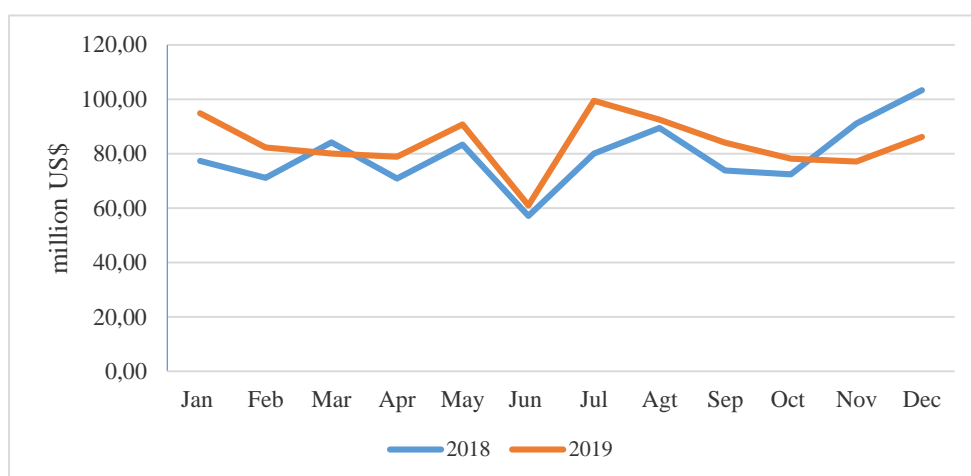
Table 1. The Summary of The Result of Annual Manufacturing Survey 2014, 2015, and 2017

| Description/Year | 2014 | 2015 | 2017 |
|---|-----------|-----------|-----------|
| Total Manufacturing Services (million US\$) | 1 324.7 | 2 269.2 | 2 701.6 |
| Total FOB Value (million US\$) | 175 980.0 | 150 366.3 | 168 828.2 |
| % Total Manufacturing Services to Total FOB | 0.75 | 1.51 | 1.60 |

The result of the Annual Manufacturing Survey, gives information about the specific industries that export manufacturing services. In 2017 manufacturing services were mainly produced in the manufacture of wearing apparel (27.85 percent), the manufacture of computer, electronic and optical products (14.58 percent), and the manufacture of basic metals (13.52 percent). Unfortunately, from the survey does not give information about the kind of activities and also the country's export destination.

Data from Export Customs Declaration

Graph 1 shows the result of the monthly compilation of manufacturing services data from the export customs declaration. Generally, the value of manufacturing services was about sixty to one hundred million US dollars monthly. If summarized annually in 2018 the value of manufacturing services was US\$953.8 million, then it increased by 5.38 percent to become US\$1,005.1 million in 2019.



Graph 1. Manufacturing Services from Export Customs Declaration

The share of total manufacturing services from export customs declaration to total FOB in 2018 was 0.53 percent and in 2019 it increased to 0.60 percent. The significant gap between the manufacturing services from customs value and the manufacturing services from the annual manufacturing survey value is - possibly from the uncovered area in PPFTZ Batam. From the result of export customs declaration document, there is information about country's destination of the goods after processing in Indonesia. In 2019, the major destination countries were United States, Japan, and South Korea.

4. Discussion, Conclusion and Recommendations:

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The trend in the value of Indonesia's manufacturing services is increasing from year to year, indicating increase in Indonesia's participation in GVC. With increased participation in the GVC, both backward and forward, it is expected that productivity will also increase. To increase participation in the GVC, an open, free and transparent trading system and foreign direct investment environment enhancing, reducing or eliminating trade barriers such as tariffs and quotas through regional trade agreements, and also availability of infrastructure, and quality human resources are needed.

Manufacturing services for domestic and manufacturing services for foreign countries are have different arrangements. Until 2014 manufacturing services for foreign countries could not be measured because of a lack of information on them . Since integrating the question in Annual Manufacturing Survey in 2014, the manufacturing services fees obtained from foreign countries can be measured. This statistic represents export of manufacturing services by our economy. This information is very useful for policymakers, especially for trade policies. So, data collection on this variable through the Annual Manufacturing Survey should be continued.

In future, BPS plans to combine data from the Annual Manufacturing Survey and the export customs declaration since each source has its own strength and weakness. The questionnaire in the Annual Manufacturing Survey does not include questions on destinations of manufacturing services and the response rate of the survey is not a hundred percent, while export customs declaration has low validity. By combining the two sources, data on manufacturing services will be more accurate.

Parts of a production process conducted in different economies must be recorded separately. Change of ownership can be used to identify actual transactions and ensure the correct attribution of value added due to the owner and processor. In future it is necessary to add a question on destinations for manufacturing services exports to the Annual Manufacturing Survey questionnaire. The data are important to know the characteristics of the countries that use our services for manufacturing their goods. By knowing the role of Indonesia in the countries' economy, the government can make appropriate policies related to trade with those countries.

Another question that should be added to the Annual Manufacturing Survey questionnaire is about the specific types of manufacturing activities. From the current questionnaire, there is no information about these activities whether it is processing, labelling, packaging, or assembling. By knowing the activities, the government also can make better policies related to manufacturing services.

Another way to improve the quality of manufacturing services data is by further checking the validity of manufacturing services in export customs declaration. A small survey may be needed to find out whether the exporters understood about the question and if they have answered it correctly.

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