Special Highlights

SME Input-Output Study

BACKGROUND AND CONCEPT OF INPUT-OUTPUT TABLE

Study on Input-Output analysis was first mooted as a result of the First Quarter of 2017 (1Q 2017) SME Survey conducted by SME Corp. Malaysia which indicated that supply of SME products and services by SMEs to large firms was relatively low, with only 10.4% of total respondents supplied to large foreign firms in Malaysia. Recognising there may be some issues in the existing supply chain of industries among SMEs and large firms, SME Corp. Malaysia then undertook a study on SME Input-Output Table, derived from the Malaysia Input-Output Tables 2010 published by the Department of Statistics, Malaysia (DOSM).

The commission of the Study is marked with the signing of Memorandum of Understanding (MoU) in August 2017 which serves as a smart research partnership programme between Government agency and educational institution. The Study is being commissioned and conducted by SME Corp. Malaysia, in collaboration with a team of researchers from Institute of Agricultural and Food Policy Studies of Universiti Putra Malaysia (UPM), led by Dr. Mohd Yusof Saari. With the main objective to develop and analyse the Input-Output Table for SMEs in Malaysia, the Study also serves as a platform for capacity building as officers from SME Corp. Malaysia underwent various in-house trainings and workshops on Input-Output Table.

Generally, Input-Output Table is a form of macroeconomic analysis that is commonly used in growth planning and analysing the ripple effects from any economic shocks, thus the outcome is very relevant for policy planning purpose. Utilising the Malaysia Input-Output Tables 2010 from DOSM as the main framework, an extension of Input-Output Table was further developed and categorised into microenterprise, small, medium and large firm, thus making SME Corp. Malaysia as the pioneer in such project by segregating Input-Output Table according to firms' size based on the current definition of SMEs to reflect the current economic scenario and environment.

With the extension of the database, the SME Input-Output Table is now capable to describe the flows of SMEs and large firms' products and services sold (supply) and bought (demand) in an economy. Thus, it reflects the relationship between producers and consumers as well as the inter-industry interactions or inter-relationships i.e. industries use products or services of other industries to produce their own products or deliver their own services. In the Input-Output Table matrix, total output must equal to total input with the value-added included.
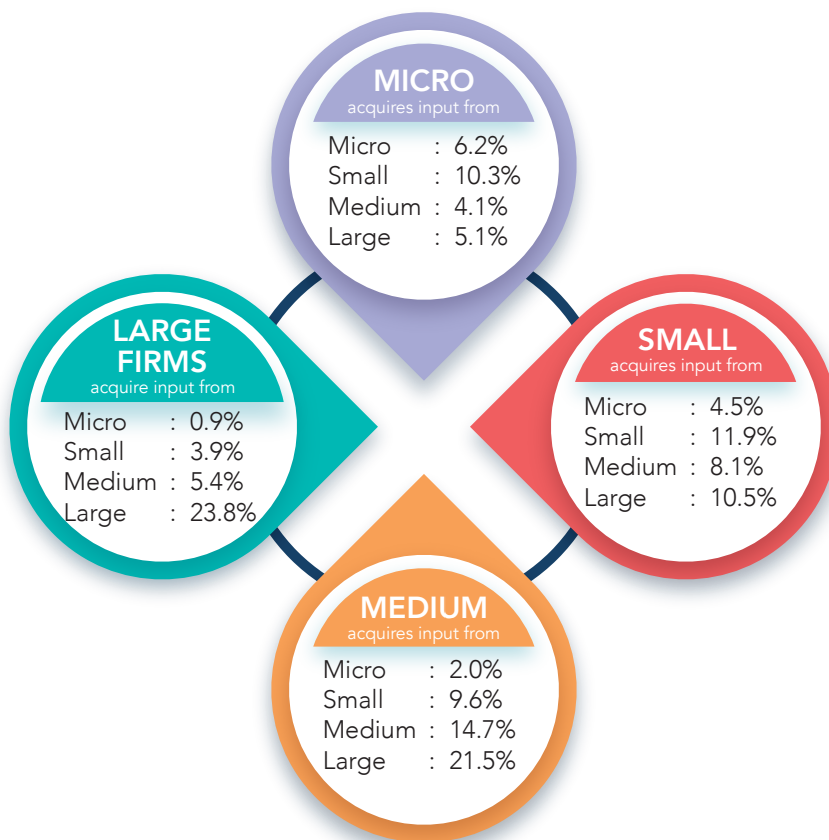
The analysis on SME Input-Output Table provides four important information as the following:

(i) **Inter-industry linkages** measure the interaction among industries in producing and consuming intermediate input that captures both backward and forward linkages. Backward linkage reflects the interaction between industries and their input suppliers (including imports), while forward linkage depicts the interaction between industries and their consumers (including exports);

(ii) **Multiplier effects** describe the economy-wide impact of a certain investment, injection or shocks on economic indicators, such as value-added, output, imports and income;

(iii) **Key economic sectors / industries**: By linking the inter-industry linkages with multiplier effects, key sectors / industries that have potential to be the main drivers of SME economic growth can be identified; and

(iv) **Value-added content** measures value-added for each unit of production that can be decomposed along the supply chain.

FINDINGS OF SME INPUT-OUTPUT TABLE ANALYSIS

In line with the 1Q 2017 SME Survey findings that indicated the low supply of SME products and services to large firms, findings from the SME Input-Output Table analysis also validated and verified the same conclusion. There is a weak linkage between SMEs and large firms in terms of supply and production.

Chart 1: Input Requirement between SMEs and Large Firms

MICRO
acquires input from
Micro   : 6.2%
Small   : 10.3%
Medium : 4.1%
Large   : 5.1%

LARGE FIRMS
acquire input from
Micro   : 0.9%
Small   : 3.9%
Medium : 5.4%
Large   : 23.8%

SMALL
acquires input from
Micro   : 4.5%
Small   : 11.9%
Medium : 8.1%
Large   : 10.5%

MEDIUM
acquires input from
Micro   : 2.0%
Small   : 9.6%
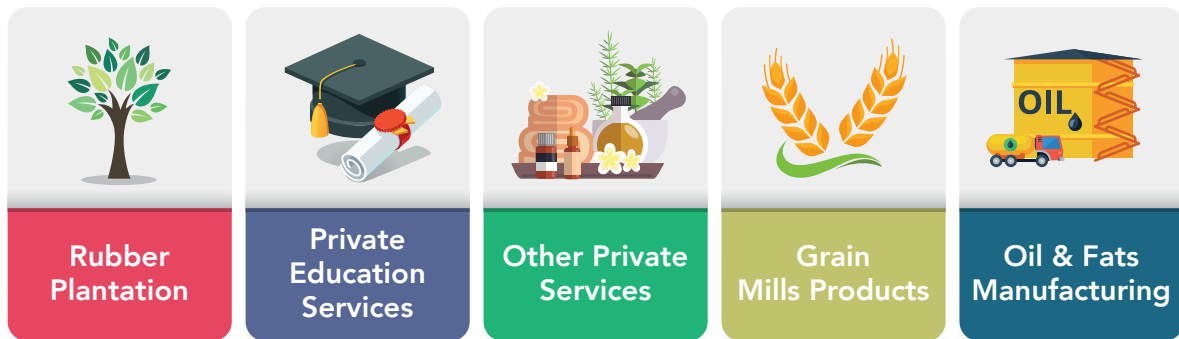Medium : 14.7%
Large   : 21.5%

Note: Total input includes value-added

Detailed analysis revealed that microenterprises, small and medium firms bought 5.1%, 10.5% and 21.5% of their total input respectively from large firms for their production process. Large firms however bought much lesser input from microenterprises (0.9%), small (3.9%) and medium (5.4%). Generally, large firms import most of their supplies and are also highly dependent on suppliers within their own cluster of large firms, supplying 23.8% of their total input within themselves (refer to Chart 1).

Large firms have higher imports intensity, which also indicate the loose connection or interaction with SMEs. Higher dependency on imports will significantly drag the value-added creation since imports are considered as the source of leakage from the economy. A thorough look at the findings revealed that most industries with low value-added multiplier tend to have higher import content. SMEs in industries such as insulated wires & cables and optical instruments & photographic equipment have high foreign (import) content and low value-added multipliers, signifying that more efforts are needed to increase the productivity of these industries and increase the local content, instead of imports.

In terms of output consumption by other industries and final consumers, the findings highlighted that 48.5% of total output produced by SMEs flows back into the economy as intermediate input, thus indicating that SMEs are more domestically integrated with other industries as compared to large firms. Of total output being produced, SMEs exported only 26.4% while large firms exported as high as 42.6% of their total output.

Chart 2: Top 5 Domestic-linked Industries among SMEs

| Rubber Plantation | Private Education Services | Other Private Services | Grain Mills Products | Oil & Fats Manufacturing |

Looking closely at industries with key potential to drive the economy, the top five domestic-linked industries among SMEs that have the highest value-added creation and strongest connection or interaction with its input suppliers are rubber plantation, followed by private education services; other private services; manufacturing of grain mills, starches & starch products and manufacturing of vegetable & animal oil & fats (refer to Chart 2). Other private services are businesses, among others, that involve in personal service activities, such as laundering & dry-cleaning, hairdressing & beauty treatment, pet care services and repair of computers, personal & household goods. This finding on top domestic-linked industries suggests that with more investment made or demand created for SMEs in these industries, the local economy in general is expected to further expand and benefit as these industries have high spillover effect and hence are capable to positively affect other related industries across the supply chain.

For full details of the findings, SME Corp. Malaysia will release the publication of SME Input-Output Table in the fourth quarter of 2018.