

## ABSTRACT

This study analyzes new aspects of intra-industry trade relationship between ASEAN5 countries and China in manufacturing sub-sectors from 1993 to 2009. China is chosen in this study as she has emerged as the largest trading partner of ASEAN in 2009 and the trade volume among them has increased gradually over the years. However, the changes of trade balance of the respective ASEAN5 countries from surplus to deficit or vice-versa have raised the problem on whether ASEAN5-China trade is dependent on inter-industry or intra-industry trade (IIT).

Besides, China with rich labour endowment has augmented her specialization and induced fundamental changes in the ASEAN5-China trade structure. The processing trade has become increasingly important in China's trade. It is also noticeable that macroeconomic variables will provide different dynamic impact on ASEAN5-China bilateral trade. In addition, the threat of passing the pain of external shock to other trading partners in regional trade has raised the concern of value chain in enhancing and sustaining bilateral trade between ASEAN5 countries and China. As such, resilient products for each ASEAN5 country must be identified in order to enhance and sustain the bilateral trade between ASEAN5 countries and China.

To produce a comprehensive study, both decomposition-type threshold based method and advanced spatial panel econometric technique are employed. The results of the decomposition-type threshold based method reveal that IIT between each ASEAN5 country and China is generally significant, particularly SITC 7 but the intensity of IIT varies among ASEAN5 countries. Singapore, Malaysia and Thailand are prone to IIT while the intensity of IIT for Indonesia and Philippines are relatively low. Besides, vertical intra-industry trade (VIIT) has dominated IIT between each ASEAN5 country and China across manufacturing sub-sectors. This confirms that IIT between the two regions is processing trade in nature.

This study then applied spatial panel econometric technique to estimate the explanatory variables of VIIT for each manufacturing sub-sector. The estimated results reveal that the impact of each explanatory variable is varied. FDI is significant in all manufacturing sub-sectors except for SITC 8 while DGDP serves as catalyst in stimulating VIIT between ASEAN5 countries and China in SITC 6 and 7. Furthermore, the spatial interaction effects are found to be present in each manufacturing sub-sector.

VIIT is then further decomposed into high value of vertical intra-industry trade (HVIIT) and low value of vertical intra-industry trade (LVIIT). The HVIIT products provide the synergy in strengthening the trade relationship between the two countries and otherwise for LVIIT products. The decomposition results reveal that the focal points of Singapore are in all manufacturing sub-sectors except SITC 8; Malaysia on SITC 5 and SITC 6; Thailand and Indonesia on SITC 7. Although Philippines focuses on SITC 7, her trade ties with China is relatively volatile throughout the study period. Hence, Philippines needs to reshuffle her trade policies to enhance the sustainability of trade with China. Besides, the analysis has identified the resilient products in each manufacturing sub-sector where value-adding by ASEAN5 countries are consistently possible in their bilateral trade with China.

## Abstrak

Kajian ini menganalisis aspek baru perdagangan intra-industri antara ASEAN5 dan China dalam setiap sub-sektor pembuatan dari tahun 1993 hingga 2009. China dipilih dalam kajian ini adalah kerana China telah muncul sebagai rakan dagangan terbesar ASEAN pada tahun 2009 dan nilai dagangan di kalangan mereka kian meningkat dari tahun ke tahun. Namun begitu, imbalan perdagangan di antara setiap negara ASEAN5 dengan China berubah-ubah dari lebihan ke defisit atau sebaliknya telah menimbulkan curiga sama ada perdagangan antara ASEAN5-China adalah bergantung kepada perdagangan antara industri atau intra-industri (IIT).

Selain itu, China yang kaya dengan buruh endowmen telah memperkukuhkan dan memperluaskan pengkhususan negaranya. Tindakan ini telah menyebabkan perubahan asas dalam struktur perdagangan antara ASEAN5 dan China. Perdagangan pemprosesan menjadi semakin penting dalam perdagangan ASEAN5-China. Tambahan pula, pembolehubah-pembolehubah makroekonomi juga memberi kesan dinamik yang berbeza dalam perdagangan antara ASEAN5-China.

Di samping itu, kejutan luaran telah menimbulkan kebimbangan dalam meningkatkan dan mengekalkan perdagangan dua hala antara negara-negara ASEAN5 dan China. Oleh itu, ASEAN5 mesti mengenalpasti 'resilient product' masing-masing untuk meningkatkan dan mengekalkan perdagangan dua hala antara ASEAN5 dan China.

Untuk menghasilkan satu kajian yang komprehensif, kaedah 'decomposition-type threshold based method' dan teknik data panel 'spatial panel econometric model' telah digunakan. Keputusan 'decomposition-type threshold based method' menunjukkan bahawa secara umumnya, IIT antara setiap negara ASEAN5 dengan China adalah signifikan terutamanya SITC 7 tetapi keamatan IIT adalah berbeza-beza di kalangan ASEAN5. Singapura, Malaysia dan Thailand cenderung kepada IIT manakala keamatan IIT Indonesia dan Filipina adalah lebih rendah jika dibandingkan dengan negara-negara

ASEAN5 yang lain. Selain itu, VIIT mendominasi IIT antara setiap negara ASEAN5 dengan China dalam setiap sub-sektor pembuatan. Keputusan ini mengesahkan bahawa IIT antara kedua-dua rantau ini adalah dalam bentuk perdagangan pemprosesan.

kajian ini juga menganggarkan koefisien pembolehubah-pembolehubah VIIT dengan 'spatial panel econometric model' dalam setiap sub-sektor pembuatan. Keputusan yang diperolehi menunjukkan bahawa kesan setiap pembolehubah adalah berbeza dalam sub-sektor pembuatan yang berlainan. FDI adalah signifikan dalam setiap sub-sektor kecuali SITC 8 manakala DGDP merupakan pemangkin terhadap VIIT antara ASEAN5 dan China dalam SITC 6 dan 7. Keputusan yang diperolehi juga menunjukkan bahawa kesan interaksi antara ASEAN5 dalam perdagangan dengan China adalah signifikan dalam setiap sub-sektor bidang pembuatan.

VIIT kemudiannya dihuraikan kepada 'high value of vertical intra-industry trade' (HVIIT) dan 'low value of vertical intra-industry trade' (LVIIT). Keputusan penghuraian ini menunjukkan bahawa tumpuan Singapura adalah dalam semua sub-sektor pembuatan kecuali SITC 8; Malaysia dalam SITC 5 dan SITC 6; Thailand dan Indonesia dalam SITC 7. Walaupun tumpuan Filipina adalah dalam SITC 7, tetapi perhubungan perdagangan antara Filipina dan China agak bergolak sepanjang tempoh pengajian. Oleh itu, Filipina perlu merombak dasar-dasar perdagangannya untuk meningkatkan dan mengukuhkan perdagangan dengan China. Selain itu, penghuraian tersebut juga mengenalpasti 'resilient product' dalam setiap sub-sektor pembuatan di mana ASEAN5 kekal menyumbangkan produk-produk yang berqualiti tinggi dalam perdagangan dua hala dengan China.

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ADB	Asian Development Bank
AEC	ASEAN Economic Community
AFTA	ASEAN Free Trade Area
AIA	ASEAN Investment Area
AICO	ASEAN Industrial Cooperation
APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of South East Asian Nations
ASEAN5	Indonesia, Malaysia, Philippines, Singapore and Thailand
CAFTA	China-ASEAN Free Trade Area
CEPT	Common Effective Preferential Tariff
CMLV	Cambodia, Myanmar, Laos and Vietnam
EU	European Union
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
MNCS	Multinational Corporations
NIC	Newly Industrialized Country
OECD	Organization for Economic Cooperation and Development
R&D	Research and Development
SITC	Standard International Trade Classification
UNCTAD	United Nation Conference on Trade and Development
WTO	World Trade Organization