

# **UNIVERSITI PUTRA MALAYSIA**

# DETERMINANTS OF SERVICES EXPORTS AND THEIR IMPACT ON ECONOMIC GROWTH IN SELECTED ASIAN COUNTRIES

SITI ASIAH AHMAD

FEP 2015 4



# DETERMINANTS OF SERVICES EXPORTS AND THEIR IMPACT ON ECONOMIC GROWTH IN SELECTED ASIAN COUNTRIES



Thesis is submitted to the School of Graduate, Universiti Putra Malaysia in the fulfillment of the requirements for the Degree of Master of Science

September 2015

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# DEDICATION



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Abstract of thesis to be presented to the Senate of Universiti Putra Malaysia in fulfilling the requirement for the degree of Master of Science

## DETERMINANTS OF SERVICES EXPORT AND THEIR IMPACT ON ECONOMIC GROWTH IN SELECTED ASIAN COUNTRIES

By

### SITI ASIAH AHMAD

#### September 2015

# Chairman: Shivee Ranjanee a/p Kaliappan, PhD Faculty: Economics and Management

In recent decades, services sector has been identified as a new engine for economic transformation in both developed and developing countries. Services trade, in particular, is regarded as a new source of income, especially for developing countries. Even though services trade only represent 20.2 per cent (2010) to total world trade, interestingly, recent trend shows that the share for developing countries in services trade increased to 32 per cent (2010) as compared with only 20 per cent in 1990. In addition, the share of services exports to total exports is increasing from 18 per cent to 30 per cent for the period of 1990 and 2010. Although, most of the developing countries are still net importers for services, there is a widespread belief among scholars and policy makers that there is great potential for services exports to grow further as new source of income for developing countries.

The main purpose of this study is to empirically examine the determinants of services export and its impact on economic growth by using panel data in selected Asian countries. To achieve the first objective, static linear panel data model is applied through fixed and random effects model. Meanwhile, the second objective was tested by using panel dynamic OLS (DOLS) to capture the dynamic linkages among the selected variables. Annual data covering the period from 1985 to 2012 was utilized. The selected Asian countries are China, Hong Kong, South Korea, India, Iran, Indonesia, Malaysia, Philippines, Singapore, Thailand, Kuwait, Saudi Arabia and Turkey.

The findings indicates that services exports in Asian developing countries are influenced by exchange rate, foreign income, foreign direct investment (FDI), value added of services, and communication facilities. As for second objective, it can be concluded that all of the macroeconomic variables tested are co-integrated in the long run. A services export also has a significant and positive impact on economic growth.

The findings implies that the Asian developing countries have the opportunity to compete in exporting services globally provided that these countries could exploit their potential especially through stable exchange rate, promotion of services sector and other sector which are using services as intermediate input and also by enhancing the communication facilities. Moreover, since services exports found to a significant determinants of economic growth, Asian developing countries should focus more on developing appropriate policy measures to increase the productivity of the services sector.



Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Master Sains

## FAKTOR-FAKTOR YANG MEMPENGARUHI EKSPORT PERKHIDMATAN DAN KESANNYA KE ATAS PERTUMBUHAN EKONOMI DI NEGARA-NEGARA ASIAN TERPILIH

Oleh

### SITI ASIAH AHMAD

#### September 2015

# Pengerusi: Shivee Ranjanee a/p Kaliappan, PhD Fakulti: Ekonomi dan Pengurusan

Dalam dekad terkini, sektor perkhidmatan dikenal pasti sebagai sumber pertumbuhan baru bagi transformasi ekonomi di negara maju mahupun membangun. Perkhidmatan perdagangan, khususnya, adalah sebahagian daripada sumber pendapatan baru terutamanya bagi negara-negara membangun. Di sebalik sumbangan perdagangan perkhidmatan sekitar 20.2 peratus (2010) kepada jumlah perdagangan di dunia, menariknya, aliran terkini menunjukkan sumbangan negara-negara membangun dalam perkhidmatan perdagangan meningkat kepada 32 peratus (2010) berbanding dengan hanya 20 peratus pada tahun 1990. Di samping itu, sumbangan eksport perkhidmatan kepada jumlah eksport turut meningkat dari 18 peratus kepada 30 peratus bagi tempoh 1990 dan 2010. Walaupun kebanyakan negara membangun adalah pengimport bersih bagi perkhidmatan, terdapat keyakinan yang meluas di kalangan penganalisis dan pembuat dasar bahawa terdapat eksport perkhidmatan mempunyai potensi yang besar untuk terus berkembang sebagai sumber pendapatan baru bagi negara-negara membangun.

Oleh itu tujuan utama kajian ini adalah untuk mengkaji secara empirikal faktorfaktor penentu yang boleh mempengaruhi eksport perkhidmatan dan kesannya ke atas pertumbuhan ekonomi dengan menggunakan data panel negaranegara membangun Asia terpilih. Untuk mencapai objektif pertama, model "Static Linear Panel Data" digunakan melalui model "Fixed and Random effect". Sementara itu, Objektif kedua diuji dengan menggunakan model "Panel Dynamic OLS" (DOLS) untuk mengenalpasti hubungan dinamik antara pembolehubah dipilih. Data tahunan bagi tempoh 1985-2012 telah digunakan dalam kajian ini. Negara-negara Asia yang terpilih dalam kajian ini ialah China, Hong Kong, Korea Selatan, India, Iran, Indonesia, Malaysia, Filipina, Singapura, Thailand, Kuwait, Arab Saudi dan Turki.

Keputusan empirikal kajian ini menunjukkan bahawa eksport perkhidmatan di negara-negara membangun Asia dipengaruhi oleh kadar pertukaran wang, pendapatan asing, pelaburan langsung asing (FDI), nilai ditambah bagi perkhidmatan dan kemudahan komunikasi. Bagi objektif kedua, didapati semua pembolehubah makroekonomi yang diuji adalah saling bersepadu antara satu sama lain dalam jangka masa panjang. Eksport perkhidmatan

sebagai satu pembolehubah juga memberi kesan signifikan dan mempunyai hubungan yang positif dengan pertumbuhan ekonomi.

Kajian ini sekali gus menunjukkan bahawa negara-negara membangun di Asia mempunyai peluang untuk bersaing dalam eksport perkhidmatan di peringkat global dengan mengambilkira potensi mereka terutama melalui matawang yang stabil, promosi dan galakan perkhidmatan dan sektor lain yang menggunakan perkhidmatan sebagai input perantaraan dan juga untuk meningkatkan kemudahan komunikasi. Dapatan kajian juga menggambarkan bahawa secara bebas, eksport mempunyai kesan yang signifikan dan positif kepada pertumbuhan ekonomi. Oleh itu corak ekonomi negara-negara membangun di Asia dilihat sedang berubah dari negara perindustrian kepada negara berasaskan perkhidmatan memandangkan ia adalah lebih stabil dan munasabah dari segi pengurusan kos dan kemampanan jangka panjang.

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## Shivee Ranjanee Kaliappan, PHD

Senior lecturer Faculty of Economics and Management Universiti Putra Malaysia (Chairman)

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Date:

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Signature:		Signature:	
Name of Chairman of Supervisory Committee:	JPM		
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5.3. Limitation and Future Research Direction

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## LIST OF ABBREVIATIONS

- WTO World Trade of Organization
- ICT Communication Technology
- GATS General Agreement On Trade In Services
- GDP Gross Domestics Products
- CPC Central Product Classification
- GATT General Agreement on Trade and Tariffs
- UNCTAD United Nations Conference on Trade and Development
- FDI Foreign Direct Investment
- NTT New Trade Theory
- OLS Ordinary Least Squares
- MNC Multinational Companies
- DOLS Dynamic Ordinary Least Square
- BLUE Best Linear Unbiased Estimator
- SIC Schwarz Information Criteria

## CHAPTER 1

### INTRODUCTION

### 1.0 An Overview

In recent decades, the services sector has been identified as the new engine of growth for this millennium in most developed and developing countries because of a widespread belief that an efficient services sector is highly important for trade and economic growth. In general, the services sector provides crucial support to other sectors in the economy and industries as a whole—for instance, through finance, transportation, communication, wholesaling, communications and other business services. Besides its contribution to economic activities, increased trade in services and the availability of various subservices may also boost economic growth by improving the performance of other industries, as services can serve as key intermediate inputs, especially in an increasingly globalized world economy.

This current scenario was supported by Mattoo and Stern (2007), who claimed that international trade and investment in services are becoming an increasingly important part of global commerce. A recent trend shows that world exports of commercial services have registered relatively higher growth of 7.9% as compared with trade in goods (6.6%) in the past two decades (WTO, 2010). In terms of share, services trade represents about 20% of total trade globally. This phenomenon has a greater impact on countries focused on additional income generation from the external sector. Nonetheless, the value of merchandise trade is generally two to three times higher than that of services trade. Despite the relatively low level of international trade in services, many believe that this may grow in future and contribute significantly to the growth of the domestic as well as the global economy. The main factors in facilitating and stimulating services trade are technological developments and the liberalization of services. Advances in technology, and especially in information and communication technology (ICT), have increased the tradability of some services, facilitating, for instance, web-based services such as those for finance, education, health and government among others. Moreover, since the first round of General Agreement on Trade in Services (GATS) negotiations in 2000, many countries are seen to have substantially liberalized services (in multilateral as well as in regional trading arrangements), which have become increasingly tradable and account for a larger share of GDP in most countries.

The issues of international trade and economic growth have gained substantial attention from scholars and policy makers, especially with the implementation of trade liberalization policies in developing countries across the world. Mattoo, Rathindran and Subramaniam (2001) asserted that if liberalization of trade in goods, which typically accounts for less than half of GDP in most countries, can have an effect on economy-wide growth, and then there should be comparable gains from liberalization of services. Trade in services can improve not only the performance of the services sector but also the economy as a whole by serving as an intermediate input to other sectors (Arnold, Javorcik and Mattoo, 2006). Despite the increasing importance of services trade in the global economy, the

literature remains limited, especially in respect of the determinants of services trade and its impact on the growth of domestic economies. The present study seeks to fill that void by exploring the determinants and growth impact of services trade in selected Asian countries. The sections that follow will detail the background of the services sector in the global economy, a statement of the problem and the significance of the present study.

## 1.1 Background

## 1.1.1 Contribution of Services Sector to Gross Domestic Product (GDP)

Services are essential for a dynamic modern economy, either as a final output or as an intermediate input to other sectors. This recent development aligns with the new era of globalization and technological advance. Accounting for 67.9% of GDP in the world (see Table 1.1), services play a vital role in national economies. The trend towards developing a so-called 'knowledge-based' or 'service' economy has to varying degrees stimulated the increasing importance of the services sector around the world. In 2013, total world value added amounted to US\$53,767 billion, an almost twofold increase from the 1980 figure of US\$21,889 billion. In the services sector, value added increased by 159.9% to record US\$36,513 in 2013 (from US\$14,047 in 1980). During the same period, the contribution of the industrial sector has gradually diminished to 28.6% in 2013 (from 31.5% in 1980). The agriculture sector, though important in ensuring sufficiency of food supply, contributed only 3 to 5% in the same period.

From a regional point of view, services dominated value added in developed economies, with a share of 75.0% in 2013 as compared with 68.2% in1980. In contrast, the industrial sector share shrank to 23.6% in 2013 from 30.0% in 1980 while agriculture contributed only about 1 to 3% to total value added (see Table 1.1). The scenario is different in developing economies, where both services and industrial sectors account for a significant share of the economy. This is because most of the developing economies transformed to an industrial base in the early 1970s and at the same time strengthened their services sector to support activities in the industrial and agricultural sectors. However, the services sector still leads in terms of value added with a share of 53.2% in 2013, increasing from 47.5% in 1980. In the same period, the agriculture sector's share shrank to 7.9% from 11.9% in 1980 (see Table 1.2).

Table 1.1
Value added and share by kind of economic activity, 1990 -2013

USD billion									Per cent
Gro	ear/ oup of untry	Total	Services	Industry	Agriculture		Share: Servic es	Shar e: Indus try	Share: Agricultu re
	1980	22,607	14,664	7,110	833		64.9	31.5	3.7
	1985	25,474	16,911	7,591	972		66.4	29.8	3.8
	1990	30,117	19,992	9,010	1,115		66.4	29.9	3.7
world	1995	33,296	22,477	9,660	1,160		67.5	29.0	3.5
Ň	2000	39,036	26,432	11,265	1,339		67.7	28.9	3.4
	2005	44,773	30,479	12,776	1,519		68.1	28.5	3.4
	2010	50,093	34,068	14,284	1,741		68.0	28.5	3.5
	2013	53,767	36,513	15,372	1,882		67.9	28.6	3.5
	1980	18,137	12,545	5,269	323		69.2	29.1	1.8
ies	1985	20,339	14,314	5,658	367		70.4	27.8	1.8
mon	1990	23,850	16,837	6,613	400		70.6	27.7	1.7
Developed Economies	1995	26,113	18,771	6,952	391		71.9	26.6	1.5
ped	2000	30,191	21,860	7,878	453		72.4	26.1	1.5
velo	2005	33,250	24,474	8,313	464		73.6	25.0	1.4
De	2010	34,566	25,797	8,287	483		74.6	24.0	1.4
	2013	35,838	26,895	8,452	491		75.0	23.6	1.4
	1980	3,670	1,744	1,487	438		47.5	40.5	11.9
lies	1985	4,171	2,122	1,518	531		50.9	36.4	12.7
non	1990	5,139	2,619	1,897	623		51.0	36.9	12.1
Developing Economies	1995	6,550	3,360	2,474	716		51.3	37.8	10.9
ping	2000	8,160	4,193	3,136	832		51.4	38.4	10.2
velop	2005	10,603	5,494	4,118	991		51.8	38.8	9.3
De	2010	14,402	7,607	5,603	1,191		52.8	38.9	8.3
	2013	16,684	8,876	6,495	1,312		53.2	38.9	7.9

Source: UNCTAD Statistics Online Database Website, 2014

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As depicted in Figure 1.1, the share of services value added was dominated by the developed economies, which contributed about 43.2% in 1990. Among the developed economic regions, America and Europe were the main contributors with shares of 43.0% and 40.1%, respectively, the rest coming from Asia and Oceania. In 2010, the contribution of developed economies to the services sector had shrunk to 73.7%. America became the most dominant region with a share of 45.0%, while Europe region recorded a lower share of 39.7%. At that time, Asia and Oceania contributed 12.2% and 2.6%, respectively.

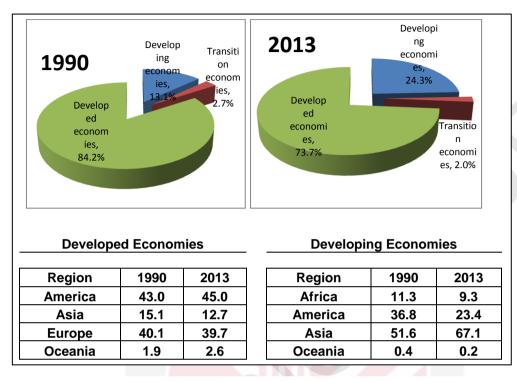


Figure 1.1 The Share of Services Sector by Region (percentage), 1990 and 2013

Source: UNCTAD Statistics Database Website, 2014 Note: Asian developing economies consists of 40 countries altogether<sup>1</sup>

Against this, the developing economies contributed a share of 13.1% in 1990, dominated mainly by the Asian region (51.6%). In 2010, the contribution of developing economies to services value added increased to 24.3%. Among developing economic regions, Asia is the most dominant, accounting for 67.1% of the services sector. By looking further into the Asian developing countries, as depicted in Table 1.2, China is the largest contributor for services sector in this region with a share of 34.7 in 2013 (in 1990 was 15.4%). It is followed by India (13.5%) and Korea (10.6%). Other countries which hold more than one per cent share of services value added in Asian developing countries are Hong Kong, Indonesia, Iran, Republic of Korea, Kuwait, Malaysia, Philipines, Saudi Arabia, Singapore, Thailand and Turkey. These countries contribute 31.6 per cent to total services value added in the region.

<sup>&</sup>lt;sup>1</sup> See Appendix 1

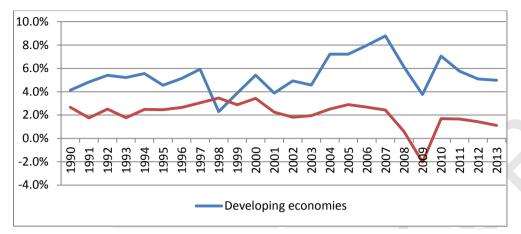
# Table 1.2

The share of services value added in Asian developing countries,	
1990 and 2013	

	Country/year	1990	2013
1	China	15.4	34.7
2	Hong Kong	5.8	3.7
3	India	9.8	13.5
4	Indonesia	4.4	3.5
5	Iran	3.6	1.8
6	Republic of Korea	15.9	10.6
7	Kuwait	1.0	1.0
8	Malaysia	1.6	1.8
9	Philipines	2.2	1.5
10	Saudi Arabia	5.2	3.5
11	Singapore	2.4	2.1
12	Thailand	3.7	2.3
13	Turkey	10.6	6.4
14	13 Selected Countries	81.5	86.2
15	Other countries	18.5	13.8
16	Total Asian	100	100

Source: UNCTAD database, 2014

In addition, Figure 1.2 shows the annual growth rate of the services sector by group of economies for the period 1990–2010. It can be seen that the growth of the services sector in developing economies during that time was higher than in developed economies, except for the years 1990, 1998, 1999, 2001, 2002 and 2003; growth peaks in 2007 at more than 20%. It is interesting that, although most countries experienced global recession in 2009, the developing economies still posted positive growth for the services sector as compared to developed economies (which recorded negative growth).

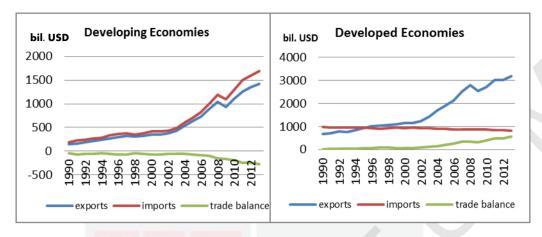


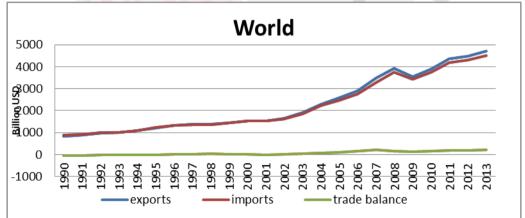
# *Figure 1.2* Annual Growth Rate of Services Sector by Group of Economies, 1990–2013

Source: UNCTAD Statistics Database Website, 2014

## 1.1.2 The Pattern of Trade in Services

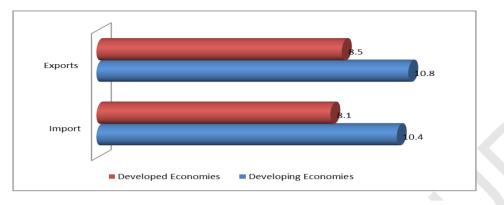
Globally, services trade accounted for 20.4% of total trade in 2010 (World Bank, 2011). As shown in Figure 1.3, world trade balance recorded a marginal surplus, most of it contributed by the developed economies. With exports of services larger than imports, developed economies remained net exporters for services. Here, we can see that developing economies have not yet exploited the potential of the trade in services even though their services sector grow larger year by year.





*Figure 1.3* Exports, Imports and Trade Balance of Services, 1990 –2013 Source: UNCTAD Statistics Database Website, 2014

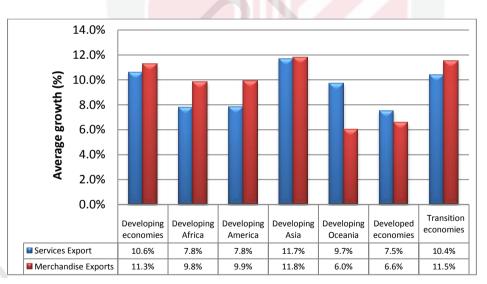
Figure 1.4 illustrates the average growth rate of exports and imports of services for developed and developing economies between 1990 and 2013. Average growth rates for exports of services in developing economies showed acceleration of 10.8% for that period, despite accelerating imports. On the other hand, although developed economies contributed the greater part of exported services, the average shows smaller growth of 8.5% in the same period.



# *Figure 1.4* Average Growth Rates of Exports and Imports of Services, 1990–2013, Developed and Developing Economies

Source: UNCTAD Statistics Database Website, 2014

As compared to merchandise, the average growth rate for services exports seems lower for developing economies (see Figure 1.5). However, when examined by region, Asia is found to account for the largest part of the developing economies, recording double digit growth of 11.9%. In the same period, merchandise exports also achieved steady growth of 12.0%, while developed economies recorded an average of 7.7% and 6.6% for merchandise and services exports, respectively.



*Figure 1.5* Average Growth Rates of Merchandise and Services Exports, 1990–2013, by Region

Source: UNCTAD Statistics Database Website, 2014

As depicted in Table 1.3, services exports were dominated by the developed economies with a share of 67.6%, although the share of services exports for developing countries has generally seen significant increase over the last two decades. The latest figure (2013) recorded by this group of countries is 30.1% as compared with 18.1% in 1990. In the developed economies, Europe is the main regional contributor (2013: 67.2%), while among the developing economies; Asia is more predominant with a share of 81.2 % in 2013.

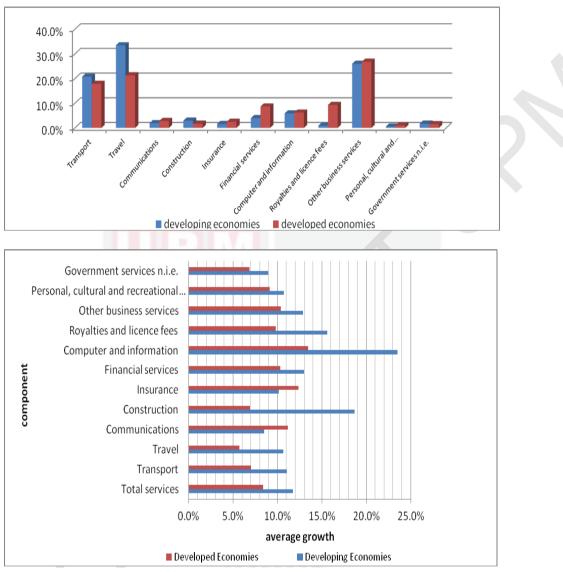
Year/Region	1990	1995	2000	2005	2010	2013
World	100.0	<mark>1</mark> 00.0	100.0	100.0	100.0	100.0
Developing economies	18.1	22.4	23.1	24.6	29.7	30.1
Transition economies	2.0	1.5 -	1.6	2.2	2.7	2.7
Developed economies	79.9	76.1	75.3	73.2	67.6	67.2
Share to Developing economies						
Developing: Africa	14.4	10.3	9.4	9.5	8.0	6.7
Developing: America	21.0	16.7	17.6	14	11.7	22.8
Developing : Asia	64.0	72.5	72.7	76.1	80	81.2
Developing : Ocea <mark>nia</mark>	0.5	0.4	0.3	0.5	0.3	0.3
Share to Developed economies						
Developed : America	25.2	26.4	28.7	23.0	24.0	24.1
Developed : Asia	6.9	8.0	7.5	6.5	6.4	5.7
Developed : Europe	66.0	63.4	61.6	<u>68.</u> 4	67.5	68.1
Developed: Oceania	1.9	2.3	2.1	<mark>2</mark> .1	2.2	2.1

# Table 1.3 Share of Services Exports by Region and Group of Economies, 1990–2013 (Millions USD)

Source: UNCTAD Statistics Database Website, 2014

Figure 1.6 shows the share of services exports for developed and developing countries by component for 2013, along with the average growth in services exports for the years 2001–2013. In terms of share, we can see that developed economies dominated more in modern services, especially for other business services, royalties and license fees, and financial, computer and communication services. On the other hand, developing economies rely on traditional services, mostly travel and transport. However, in terms of trends, developing economies showed a faster momentum than developed countries. Most of the components show favourable average growth at more than 10%, indicating that developing economies have sought to strengthen their services exports as one of source of income.

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*Figure 1.6* Shares (2013) and Average Growth (2001–2013) of Services Exports by Component, Developed and Developing Economies

Source: UNCTAD Statistics Database Website, 2014

From the services imports perspective, it can be seen that the trend of growth and share is similar to that of services exports. In 1990, the share of services imports for developed economies accounted for 74.4%, decreasing to 58.1% in 2013. This differs from the situation in developing economies, where the contribution of services imports increased by more than 10 percentage points from 22.1% in 1990 to 37.7% in 2013 (see Table 1.4).

Year/Region	1990	1995	2000	2005	2010	2013	
World	100.0	100.0	100.0	100.0	100.0	100.0	
Developing economies	22.1	27.1	27.4	28.4	35.2	37.7	
Transition economies	3.5	2.2	1.9	2.8	3.4	4.1	
Developed economies	74.4	70.7	70.7	68.8	61.4	58.1	
Share to Developing ec	Share to Developing economies						
Developing: Africa	15.6	11.5	9.9	11.0	11.6	10.1	
Developing: America	19.5	17.0	17.8	13.6	13.0	13.8	
Developing : Asia	<u>64.4</u>	71.1	71.9	74.9	74.9	75.7	
Developing : Oceania	0.4	0.4	0.3	0.5	0.5	0.4	
Share to Developed economies							
Developed : America	22.3	20	24.6	21.8	22.0	21.6	
Developed : Asia	13.7	13.8	11.0	8.1	7.8	7.0	
Developed : Europe	61.4	63.7	62.1	67.8	67.6	68.5	
Developed: Ocean <mark>ia</mark>	2.6	2.5	2.2	2.3	2.7	2.9	

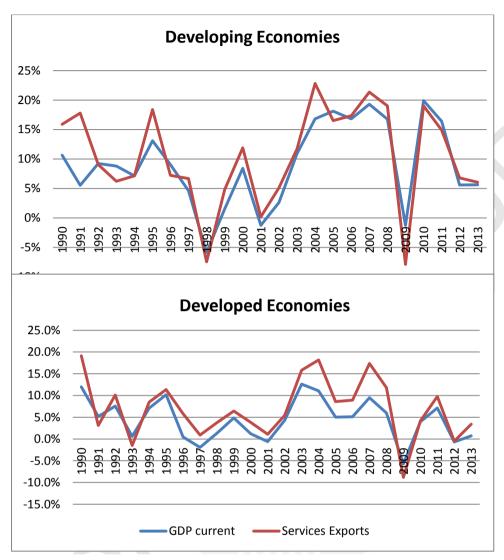
Table 1.4 Share of Services Imports by Region and Group of Economies, 1990–2013 (Millions USD)

Source: UNCTAD Statistics Database Website, 2014

Given the development of the services sector and services trade in developing economies, especially in Asia, it would be interesting to understand the determinants of services exports and how it give an impact on economic growth. Within three decades, the contribution of the services sector in this region increased in line with growth momentum; the trend analysis above provides evidence that the share of services exports also has augmented during this period.

The trend analysis of services exports and economic growth (see Figure 1.7) suggests that services exports seem to be growing constantly faster than economic growth, especially for the developed economies. This differs from the developing economies, where services exports and economic growth seem to develop in tandem. In the case of developed economies, which are broad-based and fundamentally strong, GDP performance does not rely on any single sector.





*Figure 1.7* Percentage Annual Growth Rates of Services Exports and GDP, Developed and Developing Economies, 1990-2013

Source: UNCTAD Statistics Database Website, 2014

As one source of income, services exports have become dominant, especially those related to modern services such as business, professional, financial and ICT services. As for developing economies, since most are more dependent on traditional services such as travel and transport, we can see that their services exports depend on the demand for such services. For instance, in 1998, when GDP performance was shrinking because of the ASEAN financial crisis, services exports remained steady, supported mainly by the performance of the travel sector. In contrast, for the period 2006–2008, the performance of services exports was lower than GDP owing to higher commodity prices, while

in 2009, with the global economy experiencing recession worldwide, we can see that services exports performance was in line with GDP.

## 1.1.3 The Performance of Services Exports in Asian Countries

In Asian developing countries, services exports recorded a value of USD1120.3 billion in 2013, increased by 10.7 per cent from USD95.6 billion in 1990. As portray in Table 1.5, 13 selected Asian countries contribute more than 80 per cent from total services exports of Asian countries. Among the highest contributors were China, India, Hong Kong, Singapore and Korea. Therefore based on the highest share and the availability of data, this study will focus on them.

Table 1.5 Share of services exports in Asian Developing Countries					
	Year/Country	1990	2013		
1	China	6.1%	18.4%		
2	India	4.8%	13.5%		
3	Hong Kong	19.1%	11.9%		
4	Singapore	13.4%	10.9%		
5	Korea, Republic of	10.7%	10.1%		
6	Thailand	6.7%	5.3%		
7	Turkey	8.4%	4.2%		
8	Malaysia	4.0%	3.6%		
9	Indonesia	2.6%	2.0%		
10	Philippines	3.4%	1.9%		
11	Saudi Arabia	3.2%	1.0%		
12	Iran (Islamic Republic of)	0.5%	0.6%		
13	Kuwait	1.3%	0.5%		
14	Selected countries	84.3%	83.9%		
15	Other countries	15.7%	16.1%		
16	Total Asian	100.0%	100.0%		

## Table 1.5 Share of services exports in Asian Developing Countries

Source: UNCTAD database 2014

## 1.2 Problem Statement

Since the 1990s, the services sector has emerged as the fastest growing sector in both developed and developing countries. The significant growth of the services sector's contribution to GDP and international trade has attracted the interest of scholars and policymakers on its potential role in the economic growth of developing countries (Li, Greenaway, & Hine, 2003). Moreover, the increasing importance of services for both the domestic and global economy has led to the implementation of GATS with the launch of the World Trade Organization (WTO) in 1995. Since the inception of the General Agreement on Tariffs and Trade (GATT) system in 1947, the world trading system has mostly focused on issues relating to trade in goods, as a large part of international trade involves physical goods, with services accounting for a much lower share. UNCTAD (2014) reports indicate that world trade in goods has increased significantly in the last decade, rising from less than US\$8 trillion in 2003 to more than US\$18.5 trillion in 2013. In addition, a similar trend has been observed in the case of services trade, which increased from US\$2 trillion in 2003 to about US\$4.7 trillion in 2013.

Although services trade has generally been growing faster, it is apparent that growth rates remain quite different across regions. In general, developed countries account for about half of global trade in goods and about two-thirds of trade in services. Developed countries account for most of the demand (imports) and supply (exports) of world trade in services, especially in computer and information services, financial services, royalties and license fees and communication services (UNCTAD, 2014). For both developing and developed countries, export of services has been increasing in most sectors since 2008. While export growth has often been higher for developed countries in the medium term since 2008, export growth in developing countries has generally been higher since 2011 in most of the service sectors. Services exports have been increasing in most sectors, especially since 2011, and it is of interest to note that their exports of services have grown much faster than those of developed countries, especially in personal, cultural and recreational services, construction services, insurance services, computer information services, other business services and travel.

Despite this impressive performance, developing countries' presence in the global market as suppliers of services is generally more limited, as international markets are largely supplied or dominated by developed countries. This obviously explains why most developing countries incur a deficit in the services account while sustaining a surplus in the merchandise account. This makes it a matter of urgency for developing countries to find ways of enhancing the contribution of services exports and eventually expanding their presence in the international services market. Some studies have highlighted how reform in the exported services sector could contribute positively to the sector's performance, eventually benefiting overall development (OECD, 1996). Although services contribute more than 50% to GDP in most developing countries, the sector's role on the external front has been quite unsatisfying, and is not clearly known in developing (especially Asian)countries.

# 1.3 Research Question

The present study seeks to address two main research questions:

- What are the determinants of services exports?
- What are the impacts of services exports on economic growth of the selected Asian developing countries?

# 1.4 Research Objectives

The objectives of this study are:

- i. To identify the determinants of services exports in selected Asian developing countries.
- ii. To examine the impact of services exports on the economic growth of selected Asian developing countries.

# 1.5 Significance of the Study

Since the pioneering theoretical models of international trade, many studies have examined issues related to trade flows, focusing largely on trade in goods and services (aggregated). Despite the growing importance of the services sector and the rapid internationalization of services, very few studies have explored issues related to trade in services in isolation. The existing literature on services focuses mainly on the growth impact of the services sector, determinants of services trade, determinants of services FDI and the growth impact of services FDI. There is little rigorous empirical work on the determinants of service trade (exports and imports) or the impact of services trade on economic growth. The present study makes two main contributions as elaborated below.

# 1.5.1 Practical or Policy Implications

This study focuses empirically on services exports in order to assess the determinants of services exports and their impact on economic growth. Such analysis is crucial not only from an academic perspective but also for policy. The findings should provide insights for policy makers as many developing countries are involved in WTO, with regional arrangements and liberalization of services trade as one key focus. It is apparent that many developing countries are reluctant to liberalize their services sector because of uncertainty about competitiveness and its growth impact. Findings from the present study may to some extent provide some insights on policy implications for developing countries as a whole. The present study would also serve as platform for more studies to be undertaken on issues relating to service trade in the future.

# 1.5.2 Complementing the Existing Literature

The present study should contribute by complementing the existing literature, especially with regard to the growth effects of services trade, as there are currently only a few studies of this issue (e.g. Francois & Schuknecht, 2000; Li et al., 2003; El Khoury & Savvides, 2006; Gabrielle, 2006; Mishra, Lundstrom, & Anand, 2011; Lorde, Francis, & Drakes, 2011; Dash & Parida, 2013; Alege &



Ogundipe, 2013). A similar scenario arises in respect of the determinants of services exports or services trade (e.g. Sapir, 1981; Freund & Weinhold, 2002; Kimura & Lee, 2006; Choi, 2010). Future researchers can gain from the outcome of this research, as potential researchers who are keen to investigate the services and trade sectors can utilize the literature review and the outcome of this study. They might also investigate its limitations to define new research dimensions and questions. In short, this study can be of value to future researchers and market analysts by virtue of its coverage of both academic and commercial issues.

## 1.6 Organization of the Chapters

The organization of this thesis is as follows. Following Chapter One, which has described the background of the study, problem statement, research objectives and significance, Chapter Two presents a review of the theoretical and empirical evidence on the determinants of services exports and the impact of services exports on economic growth. Chapter Three describes the theoretical framework, model specification, estimation procedures, variables and data sources. Chapter Four presents and discusses the findings. Chapter Five provides a summary of the study and suggests policy measures to enhance the contribution of the services sector to GDP, employment and the export sector.

#### REFERENCES

- Abou- Stait, F. (2005). Are exports the engine of economic growth? An application of cointegration and causality analysis for Egypt, 1977-2003. African *Development Bank, Economic Research Working Paper*.
- Adam Smith. (1776). An inquiry into the nature and causes of the wealth of nations. London, Methuen and co. Ltd. Edwin cannan 5th edition.
- Ahmadzadeh, K., Knerr, B., Yavari, K., Asari, A. & Sahabi, B. (2012). Competitiveness and factors affecting in services export. *Journal of Basic and Applied Scientific Research*, 2(10),10 793-10 802.
- Alege, P. & Ogundipe, A.(2013). The role of services. Trade in Economic Development.Retrieved at http://mpra.ub.unimuenchen.de/51695/1/MPRA\_paper\_51695.pdf
- Amelia, U.& Santos, P. (2005). Trade Liberalisation and economic performance: Theory and evividence for developing countries. *The World Economy*, 28(6), 783-821.
- Arnold, J., Beata, S. Javorcik, & Mattoo, A. (2007). Does services liberalization benefit manufacturing firm? Evidence from the Czech Republic. *World Bank. Policy Research Working Paper 4109*.
- Bahmani-Oskooee, M. (1986). Determinants of international trade flows: the case of developing countries. *Journal of Development Economics*, 20(1), 107-123.
- Balassa, B. (1978). Exports and economic growth: further evidence. *Journal of Development Economic*, 5(2), 181-189.
- Baldwin, R.E. (1979). Determinants of trade and foreign investment: further evidence. *The Review of Economics and Statistics*, 61(1),40-48.
- Baltagi, B.H. (1995). Econometric Analysis of Panel Data. Chichester, Wiley, England
- Banga, R. (2005). Trade and foreign direct investment in services: A review. Indian Council for Research on International Economic Relations (ICRIER) Working Paper No. 154, February 2005.
- Barcenilla, S. & Molero, J. (2003). Services Exports Flows: Empirical Evidence For The European Union. SETI project. Universidad de Zaragoza. Universidad Complutense de Mardid. Retrieved from https://www.coleurope.eu/...servicesEUinst/.../SETI.

Barro, R. & Sala-i-Martin, X. (1995). Economic growth. New York: McGraw-Hill

- Bertil, O. (1968) Model construction in international trade theory. Published in Induction, Growth and Trade. Clarendon Press,Oxford, 325–341.
- Bhagwati, J. (1978). Anatomy and consequences of exchange contrast regimes. Foreign Trade Regimes and Economic Development. Cambridge, MA Ballinger Publishing Company.
- Biao, Z.C. (2009). Determinants of exports in Chinese electronics industry, *Economic Research Journal.*
- Bispham,F.D. (2008). Panel data cointegrating regression estimator- a cross country consumption study. Department Of Economics, University of Hull.
- Bitner, M.J., Fisk, R.P. & Brown S.W. (1993). Tracking the evolution of the services marketing literature. *Journal of Retailing*, 69(1) 61 103.
- Boltho, A. (1996). Was Japanese growth export led? Oxford Journal, 48 (3), 415 -432.
- Boltho, A. (1996). The assessment: International competitiveness- Oxford Review of Economic Policy, 12(3).
- Breinlich, H. & Criscuolo, C. (2011). International trade in services: a potrait of importers and exporters. *Journal of International Economics*, 84(2),188-206.
- Breitung, J. (2000), "The Local Power of Some Unit Root Tests for Panel Data," Advances in Econometrics, Volume 15: Nonstationary Panels, Panel Cointegration, and Dynamic Panels, ed. B. H. Baltagi. Amsterdam: JAI Press, 161–178.
- Busse, M. & Koniger, J. (2012). Trade and economic growth: a re-examination of the empirical evidence. *Hamburg Institute of International Economics*, paper 123.
- Castle, L.V. & Findlay, C.C. (1987). Issues in services trade in the pacific. Pacific Economic paper no. 154, Canberra: Research School of Pacific Studies, Australian National University.
- Chanda, R. (2002). GATS and Its implications for Developing Countries: Key Issues and Concerns. *United Nation. DESA Discussion paper*, no 25.
- Chang, B.K.Y. (2009). Korean bilateral trade balance and exchange data sensitivity. evidence from panel approach. *Journal of Korea Trade,* 13 (1), 1-19.

- Choi, C. (2010). The effect of the internet on services trade. *Economic Letters*, 109, 102-104.
- Chowdhury, A.R. (2013). Does exchange rate volatility depress trade flows? Evidence from error-correction models. *The review of Economic and Statistics*, 75 (4), 700-706
- Chua, S.Y. & Sharma, S.C. (1998). An investigation of the effects of prices and exchange rates on trade flows in East Asia. *Asian Economic Journal*, 2(3), 253-271.
- Clarida, R. (1994). Cointegration, aggregate consumption, and the demand for imports: A structural econometric investigation. *American Economic Review*, 84(1), 298-308.
- Copeland, B. & Mattoo, A. (2008). The basic economics of services trade, in Mattoo, A., Stern, R.M. & Zanini, G. (eds.). A Handbook of International Trade in Services, Oxford University Press, 84-129.
- Dash, R. & Parida, P. (2013). FDI, services trade and economic growth in India: Empirikal evidence on causal links. *Empirical Economics*,45(1), 217-238.
- Deardorff, A. (1985). Comparative advantage and international trade and investment in services. *Canada/US Perspectives*. 39-71. R.M. Stern. Toronto: Ontario Economic Council.
- Dewan, E. & Hussein, S. (2001). Determinants of economic growth (panel data approach). *Working Paper, 2001/04.* Suva. Department of Economics, Reserve Bank of Fiji.
- Dollar, D. (1992). Outward-oriented developing economies really do grow more rapidly: Evidence from 95 LDCs, 1976-85. *Economic Development and Cultural Change*, 40(3), 523-544.
- Dollar, D. & Kraay, A. (2000). Growth is good for the poor. The World Bank Development Research Group.
- Edwards, S. (1998). Openness, productivity and growth: What do we really know?, Economic Journal, 108, 383-398.
- Ekanayake, E (1999). Exports and economic growth in asian developing countries: cointegration and error-correction model. *Journal on Economic Development*, 24 (2), 43-56.
- El Khoury, A.C. & Savvides A. (2006). Openess in services trade and economic growth. *Economic Letters*, 92(2), 277-283.
- Elsakka, M.I.& Mutari, N.H. (2000). Export and economic growth: the Arab experience. *The Pakistan Development Review*, 39(2), 153-169.

- Emilio, J.M. (2001). Is the export led growth hypothesis valid for developing countries? a case study of Costa Rica. United Nation. Policy Issues in International Trade and Commodities. United Nations Conference On Trade And Development 2001, No. 7.
- Feder, G. (1982). On exports and economic growth. *Journal of Development Economics*, 12(1), 59-73
- Feenstra, R.C. (2010). Measuring the gains from trade under monopolistic competition. *Canadian Journal of Economics*, 43(1), 1-28.
- Fosu, A. K. (1990). Exports and economic growth: the African case. World Development, 18 (6), 831-835.
- Francois, J., Hoekman, B.& Woerz, J. (2007). Does gravity apply to intangibles? Measuring openness in services. Center for Economic and Policy Research. Johannes Kepler Universitat, World Bank, and Vienna Institute for International Economic Studies, Unpublished manuscript.
- Francois, J.F. (1990). Trade in nontradables: proximity requirements and the pattern of trade in services. *Journal of International Economic Integration*, 5(1), 31-46.
- Francois, J. & Reinert (1996). The role of services in the structure of production and trade: stylized facts from cross-country analysis. *Asia-Pacific Economic Review*, 2, 35-45.
- Francois, J.F. & Schuknecht, L. (2000). International trade in financial services, competition and growth performance, CIES working paper no.6.
- Freund, C. & Weinhold, D. (2002). The internet and international trade in services. *The America Economic Review*, 92 (2), 236-240.
- Furuoka, F. (2007). Do export act as engine of growth? Evidence from Malaysia. *Economic Buletin*, 6(37), 1-14.
- Gabriele, A.(2006). Exports of services, exports of goods and economic growth in developing countries. *Journal of Economic Integration*, 21(2), 294-317.
- Ghartey. E. E. (1993). Casual relationship between exports and economic growth: Some empirical evidence in Taiwan, Japan and the US. Applied-Economics, 9,1145-1152.
- Giles, J.A. & William, C.L. (2000). Export-led growth: A survey of empirical literature and some non-causality result, part 2. *Journal of International Trade and Economics Development*, 9(4), 445-470.
- Goswami, N. (2013). Determinants of trade development: panel evidence from South Asia. South Asia Economic Journal, 14 (1), 17-33.

- Grossman, G.M. & Helpman, E. (1995). The politics of free-trade agreements. *The American Economic Review*, 85(4), 667-690.
- Grunfeld, L. & Moxnes, A. (2003). The intangible globalisation: explaining patterns of international trade in services. *Norwegian Institute of International Affairs Paper*, No. 657.
- Guisan, M.C., and Cancelo, M.T. (2002). Econometric models of foreign trade in OECD countries. *Applied Econometrics and International Development*, 2(2), 65-81.
- Gujarati, D.N. (2003). *Basic econometrics*. McGraw Hill, Higher Education, New York.
- Hadri, K.,(1999). Testing the null hypothesis of stationarity against the alternative of a unit root in panel data with serially correlated errors. Manuscript. Department of Economics and Accounting, University of Liverpool.
- Harris, Richard D. F., & Tzavalis E. (1999). Inference for Unit Roots in Dynamic Panels where the Time Dimension is Fixed. *Journal of Econometrics*, 91, 201-226.
- Hausman, J.A. (1978), Specification Tests in Econometrics. Econometrica, 46, 1251-1271.
- Hibbert, E. (2003). The new framework for global trade in services all about GATS. *The Service Industries Journal*, 23 (2),67-78.
- Hill, T.P. (1977). On goods and services. *The Review of Income and Wealth*, 23(4), 315-338
- Hindley.B. & Smith,A. (1984). Comparative advantage and trade in services. *The World Economy*, 7(4), 369-390.
- Hoekman, B. (2006). Liberalization of trade in services: a survey. World Bank, *Working Paper 4030.*
- Hoekman, B. & Djankov, S. (1997). Determinants of export structure of countries in Central and Eastern Europe. *The World Bank Economic Review*, 11(3),471-487.
- Hoekman, B. & Mattoo, A. (2008). Services trade and growth. *The World Bank, Policy Research Working Paper 4461.*
- Hoekman, B. (1994). Conceptual and political economy issues in liberalizing international transactions in services. In Deardoff, A. & Stern, R. (eds). Analytical and negotiating issues in global trading system. Ann Arbor, University of Michigan Press.

- Hoekman, B.& Djankov, S.(1998). Catching up with Eastern Europe? The European Union's Mediterranean Free Trade Initiative, In Safadi, R. (ed) Opening doors to the world: A new trade agenda for Middle East, IDRC Press. Canada.
- Heston, A., Summer, R. & Aten, B. (2001). Price structures, the quality factor and chaining. Statistical Journal of United Nations Economic Commision for Europe, 18, 77-101.
- Im, K.S., Pesaran, M.H. & Shin, Y. (1997). Testing for Unit Roots in Heterosgeneous Panels. Manuscript, Department of Applied Economics, University of Cambridge, UK.
- Im, K.S., Pesaran, M.H. & Shin, Y. (2003) Testing for Unit Roots in heterogeneous Panels. *Journal of Economics*, 115,53-74
- Jiranyakul, K.& Brahmasrene, T. (2011). An analysis of the determinants of thailand's exports and imports with major trading partners. *Southwestern Economic Review*, 29(1), 111-121
- Johannes Kepler Universitat, World Bank, and Vienna Institute for International Economic Studies, Unpublished manuscript.
- Jones, R. (2000). Globalization and the theory of Input trade. Cambridge, MA: MIT Press
- Kao, C. & Chiang, M.H. (2000). On the estimation and inference of a cointegrated regression in panel data, in Baltagi B. H. (ed.). Advances in Econometrics: Nonstationary Panels, Panel Cointegration and Dynamic Panels, 15, 179–222.
- Karam, F & Zaki, C.(2012). On the determinants of trade in services: evidence from the MENA region. *Paper presented at Economic Research Forum, Egypt.*
- Kavoussi, R.M. (1984). Export expansion and economic growth : further empirical evidence. *Journal of Development Economics*, 14(1),241-250.
- Khedhiri, S. and Bouazizi, T. (2007). An empirical analysis of the demand elasticity for Tunisian exports. *Applied Econometrics and International Development*, *7*(1), 134-148.
- Kimura, F. and Lee, H. H.(2006). The gravity equation in international trade in services. *Review of World Economics*, 142(1),92.121.
- Klenow, P.J.& Rodriguez-Clare, A. (1997). Economic growth: a review essay. *Journal of Monetary Economics*, 40, 597-617.

- Konan, D.E. & Maskus, K.E. (2006). Quantifying the impact of services liberalization in developing country. *Journal of Development Economics*, 81,142-162.
- Krenz, A. (2012). A panel co-integration analysis of industrial and services sectors' agglomeration in the european union,center for european. *Governance and Economic Development Research*. Discussion Paper. No. 46.
- Krueger, A.O. (1978). Liberalization attempts and consequences. Foreign Trade Regimes and Economic Development. Cambridge, MA Ballinger Publishing Company.
- Krugman, P. (1983). Targeted industrial policies: Theory and evidence. In induatrial change and public policy. Federal Reserve Bank of Kansas city.
- Kumar, N.(1998). Multinational enterprises, regional economic integration, and export-platform production in the host countries: an empirical analysis for the US and Japanese corporations. Eltwirtschaftliches Archiv, 134,450-83.
- Langhammer, R. (2002). Developing countries as exporters of services: what trade statistics suggest. *Journal of Economic Integration*, 17(2), 297-310.
- Ledyaeva, S. & Linden, M. (2008). Determinants of economic growth: empirical evidence from Russian regions. *The European Journal of Comparative Economics*, 5(1), 87-105.
- Levin, A., & Lin, C.F. (1992). Unit root tests in panel data:asymptotic and "nitesample properties. UC San Diego, *Working Paper 92-23.*
- Levin, A.& Lin, C. F. (1993). Unit root test in panel data: New results", University of California at San Diego, Discussion Paper No. 93-96.
- Levin, A. Lin, C.F. & Chu, C.J. (2002). Unit root tests in panel data: asymptotic and finite sample properties. *Journal of Econometrics*, 108 (revise version of 1992's work),1-24.
- Li, X., Greenaway, D., Hine, C.R. (2003). *Imports of services and economic growth: A dynamic panel approach*. Sustainable growth, Employment Creation and Technological Integration in The European Knowledge based Economy (SETI).
- Liu, X., & Shu, C. (2003). Determinants of export performance: evidence from chinese industries. *Economic Change and Restructuring*, 36(1), 45-67.
- Lopez, R. A. (2005). Trade and growth: reconciling the macroeconomic and microeconomic evidence. *Journal of Economic Surveys*, 19(4), 623-648

- Lorde, T., Francis, B. & Drakes, L. (2011). Tourism expansion and economic growth in Barbados. *The International Trade Journal*, 25(2), 205-232.
- Maddla, G.S., & Wu, S. (1999). Comparative study of unit root tests with panel data and a new simple test. *Oxford Bulletin of Economics and Statistics*, 61, 631–652.
- Majeed & Ahmad (2006). Determinants of exports in developing countries. *The Pakistan Development Review*,45 (4 Part ii),1265-1276.
- Mankiw, N. G. (2004). Principles of economics. Thomson, South-Western, USA.
- Markusen, J.R. (1988). Production, trade and migration with differentiated, skilled workers. Canadian Journal of Economics, 21(3),492-506.
- Markusen, J.R. (1989). Trade in producer services and in other specialized intermediate inputs. *American Economic Review*, 79(1), 85-95.
- Mattoo, A. & Stern, R.M. (2007). USA: A Handbook of international trade in services. Oxford University Press.
- Mattoo, A., Rathindran, R. & Subramaniam A. (2001). Measuring services trade liberalization and its impact on economic growth: an illustration. World Bank. *Policy Research Working Paper no 2655.*
- McCallum, J.(1995). Canada-US regional trade patterns. *The American Economic Review*, 85(3),615-623.
- McCombie, J. & Thirlwall, T. (1992). Comment: The re-emergence of the balance of payments constraint in J. Michie (ed). *The Economic Legacy* 1979-1992 London, Academic Press, 66-74.
- Melvin, J.R. (1989). Trade in producer services: A Hecksher-Ohlin approach. *The journal of Political Economy*, 97(5), 1180-1196.
- Michaely, M.(1977). Exports and growth: An empirical investigation. *Journal of Development Economics*, 4(1), 49-54.
- Mishra, S., Lundstrom, S. & Anand, R. (2011). Services Export sophistication and economic growth. *World Bank Policy Research Working Paper*. No 5606.
- Nelson, R. & Phelps, E. (1966). Investment in humans, technological diffusion, and economic growth. *American Economic Review: Papers and Proceedings*, 51 (2), 69-75.
- Ngouhouo, I. & Makolle, A. A. (2013). Analyzing the determinants of export trade in Cameroon (1970-2008). *Mediterranean Journal of Social Science*, 4(1), 599-606.

- Onkvisit, S. & Shaw, J.J. (1991). Is services marketing "really" different?. *Journal of Professional Services Marketing*, 7(2), 3 - 17.
- Outts, K. & Godley, W. (1992). Does Britain's balance of payments matter any more? in J. Michie (ed). The Economic Legacy 1979-1992 London: Academic Press, 60-67.
- Parikh, A. & Stirbu, C. (2004), Relationship between trade liberalisation, economic growth and trade balance: an econometric investigation", HWWA *Discussion Paper No. 282*, Hamburg Institute of International Economics, Hamburg,1-50.
- Pedroni, P. (2000). Fully modified OLS for heterogeneous cointegrated panels, *Advances in Econometrics*, 15,93-130.
- Pedroni, P. (2004). Panel cointegration: Asymptotic and finite sample properties of pooled time series tests with an application to the PPP hypothesis. *Econometric Theory*, 20, 597-625.
- Pesaran, M. (2007). A simple panel unit root test in the presence of cross section dependence. *Journal of Applied Econometrics*, 22(2), 265-312.
- Pfaffermayr, M. (1996). Foreign outward direct investment and exports in Austrian manufacturing: subtitutes or complements?. *Weltwirtschaftliches Archive*, 132(2), 501-522.
- Phimphanthavong H. (2014). The determinants of sustainable development in Laos. *International Journal of Academic Research in Management* (*IJARM*). 3(1).
- Polodoo,V., Seetanah, B., Sannasee, R.V. & Padachi K. (2012). Trade and economic growth – A perspective from BRICS nations and implications for developing world. Retrieved from http:// www.daadpartnership.htw.berlin
- Qasenivalu, M.T. (2008). The role and impact of services sector on economic growth: an econometric investigation of tourism and air services in Fiji (1968-2006): a thesis presented in partial fulfillment of the requirements for the degree of Masters of Management in Economics at Massey University, Palmerston North, New Zealand
- Renelt, D. (1991). Economic growth a review of theoretical and empirical *Literature. World Bank, Working paper 0678.*
- Riedel, J., Hall, C. & Grawe (1984). Determinants of Indian export performance in 1970s. *Review of World Economics*, 120(1), 40-63.
- Sachs, J. & Warner, A. (1995). Economic Reform and the Process of Global Integration. *Brookings Papers on Economic Activity*, 1,1–118.

- Salvatore, D. & Hatcher, T. (1991). Exports and economic growth with alternative trade strategies. *Journal of Developing Studies*, 11, 7-25.
- Sandeep, K. (2011). Determinants of export services of USA with its Asian partners: a panel data analysis. *Eurasian Journal of Business and Economics*, 4(8),101-117.
- Sapir, A. & Lutz, E. (1981). Trade in services: economic determinants and development *Related Issues World Bank, Working Paper* No. 480.
- Sapir, A. (1981). Trade benefits under the EEC generalised system of preferences. *European Economic Review*, 15, 339-355.
- Sapir, A. & Winter, A. (1994). Services trade in Greenway,D.(ed), survey in international trade, Oxford. Blackwell Publisher.
- Serrasqueiro, Z. & Nunes, P.M. (2008). Determinants of capital structure: comparison of empirical evidence from the use of different estimateors. *International Journal of Applied Economics*, 5(1),14-29.
- Sharma, K. (2000). Export Growth In India: Has FDI Played A Role?, Center Discussion Paper No. 816, Yale University.
- Shepherd, B. & Wilson, J. S. (2009). Trade facilitation in ASEAN member countries: measuring progress and assessing priorities. *Policy Research Working Paper Series No. 4615*, The World Bank.
- Shirazi, N.S. & Abdul Manap, T.A. (2005). Export-led growth hypothesis: further econometric evidence from South Asia. *The Developing Economics*, 43(4), 472-88.
- Solow, R.M.(1956). A contribution to the theory of economic growth. The Quarterly Journal of Economics, 70(1), 65-94.
- Srinivisan, T.N. & Archana, V. (2009). India in the global and regional trade: Determinants of aggregate and bilateral trade flows and firms' decision to export.
- Working paper no. 232. Indian Council for Research on International Economic Relations.
- Stern, R.M. & Hoekman, B. (1988). Conceptual issues relating to services in the international economy. In Chung, H.L. & Naha, S. (eds), Trade and investment in services in the Asia-Pacific region. Pacific and World Studies series, no 1, Inchon, Korea: Inha University, 7-25.
- Tas, N., Onder, E & Hepsen, A. (2013). Determinants on economic growth in G20 countries: A panel data approach. International *Journal of Latest Trend in Finance and Economic Science*, 3(3), 530-555.

- Tas, N., Hepsen, A.& Onder, E. (2013). Analyzing macroeconomic indicators of economic growth using panel data. *Journal of Finance and Investment Analysis*, 2(3), 41-53.
- Tegene, A. (1991). Trade flows, relative prices, and effective exchange rates: A VAR on Ethiopian data. Applied Econometrics, 23, 1369-1375.
- Thirwal, A.P. and Hussain, M.N.(1982), *Oxford Economic papers*, New series, 24(3), 498-510.
- Tinbergen, J. (1962). New York: Shaping the World Economy: Suggestions for an International Economic Policy. The Twentieth Century Fund.
- Tiwari, A.K. and Kalita, M. (2011). Governance and foreign aid in Asian countries. *Economics Bulletin*, 31(1),453-465.
- Todaro, M.P. (1997). Economic Development. Addison-Wesley, London.
- Tyler, W. (1981). Growth and export expansion in developing countries. *Journal* of Development Economic, 9, 121-130.
- UNCTAD. (2014). Statistical database online. http:// unctadstats.unctad.org. United Nation Conference on Trade and Development.
- Van Dijk, M. (2002). The Determinants of export performance in developing countries: The case of Indonesian manufacturing. *Eindhoven Centre for Innovation Studies Working Paper 02.01*. Eindhoven, The Netherlands: Eindhoven University.
- Van Lynden, W.C.E. (2011). The Determinants of Trade in Goods and Services. Eramus University Rotterdam, Mimeo.
- Walsh, K. (2006). Trade in services: Does gravity hold? A gravity model approach to estimating barriers to services trade. IIIS *Discussion Paper*, *183*.
- Wong, K.N., Tang, T.C. & Fausten, D.K. (2011). Foreign direct investment and services trade: eviden from Malaysia and Singapore. *Global Economic Review*, 38(3), 265-276
- Zeithaml, V.A.(1981). How consumer evaluation processes differ between goods and services. Reprinted in Lovelock, C. (1991), Services Marketing, 2nd Edition, Upper Saddle River, New Jersey: Prentice Hall.