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COMPARATIVE ADVANTAGE OF SERVICE EXPORTS OF SRI LANKA

Sachithra, K. M. V[a], Sajeevi, G. A. C[b] ,Withanawasam, M. P. K[c]
University of Sri Jayewardenepura, - e-mail: vilani@sjp.ac.lk
University of Sri Jayewardenepura, - e-mail: chathuri@sjp.ac.lk
University of Sri Jayewardenepura - e-mail: madurangaw@sjp.ac.lk

ABSTRACT

The Export and Import Policy of Sri Lanka has both advantages and disadvantages. In Sri Lanka export and import policy led to unsymmetrical export portfolio which has continuously earned deficit trade balances. The main objective of this study is to identify international competiveness of Sri Lankan service exports. Revealed Symmetric Comparative Advantage Indices and Trade in Service Balance Index were employed in this paper. According to the findings of the paper, Sri Lanka was able to increase its comparative advantage from 2000 to 2010. However, comparative advantage in service sector has not increased compared to the commodity exports and is limited to the narrow service range. Therefore this paper concludes that service exports of Sri Lanka do not have significant comparative advantage in the world.

Keywords: Comparative Advantage, RCA, RSCA, TBI

INTRODUCTION

Trade account in Sri Lanka continuously shows a deficit and this has had a negative effect on the health of the macroeconomy in Sri Lanka. In order to overcome this problem and reduce the deficit international trade transactions in goods as well as services have to be increased. The trade in services is different from the trade in goods due to the inherent characteristics of services such as intangibility, invisibility, transience and non-storability. Further the quality of a service cannot be identified before it is purchased. Hill (1977) states that services cannot be accumulated and thus need provider and userto be in close proximity.

Due to the growing importance of services trade General Agreement on Trade in Services (GATS) was formulated in 1995 after 4 of the Uruguay Round of trade negotiations. GATS is the first set of international rules for the international trade in services. The GATS not only aims at stimulating trade and development, but also lends credibility and reliability to the system of international trade. It also focuses on the concerns of the developing nations and provides flexibility to the member countries; the members can choose service sectors they want to offer for commitments under the GATS rules.

For the purpose of negotiations, the GATS classifies the entire range of services trade into following four modes (United Nations 2010).

Mode 1(Cross-Border Supply) refers to a situation where the services across international borders, for example a teacher dispatching teaching material to students in other country; a doctor advising his patient abroad or designer sending designs for clients of another nation through electronic means.

Mode 2 (Consumption Abroad) is where consumer moves into the territory of the service provider country to consume services: e.g. tourism, use of hotel or restaurant services abroad; ship or aircraft undergoing repair abroad.

Mode 3 (Commercial Presence) implies that the service provider, in the form of a legal unit moves into the geography of the consumer. A foreign company sets up its subsidiaries, branches, or a joint venture in the host country: e.g. foreign banks or food chain setting up operations.

Mode 4 (Movement of Natural Persons) entails the export of workforce. The service provider temporarily (for less than a year) enters another member country for providing service: e.g. fashion models or dancers, engineers, doctors, consultants, or cooks visiting other countries to supply their services.

According to Burange et al., (2009), many developing countries obtain large benefits from service exports. Due to skilled and semi-skilled labour force, those countries commence service exports under the Modes 1 and 4.

According to the Central Bank reports of Sri Lanka, (from 1999 to 2010)the share of services trade as a percentage of total trade in Sri Lanka in 1978 has been about 44.4 percent and 54.6 percent in 2000. Further, the contribution from services to GDP in 2010 is 59.3 percent. In comparison to a mere 19.05percent of annual average drop in merchandise exports (from 2000 to 2010), the growth in services exports has been a stupendous11.08 percent.

Acknowledging the growing importance of the service sector in Sri Lanka, the study attempts to evaluate the comparative advantage of Sri Lanka's export in services. Hence, the research problem of this study is to examine whether or not Sri Lanka has comparative advantage in service exports and identifying in which particular sub-sector of service Sri Lanka enjoys comparative advantage.

Accordingly, the main objective of this research is to identify international competitiveness of Sri Lankan service exports. The following sub - objectives are expected to be achieved:

- Identifying comparative disadvantage services in Sri Lankan service portfolio
- Identifying specialization in exports.

This study of examining the comparative advantage of service exports in Sri Lanka and identifying the specific sub-sectors with comparative advantage are beneficial for making conducive policies, which can facilitate the acceleration of trade in services in Sri Lanka.

The organization of the paper includes theoretical background in section 2 and methodology in section 3. The fourth section of the paper deals with the analysis of the study and section 5 concludes the study.

LITERATURE REVIEW

International Trade is the most important element of the economic growth. It enhances geographical boundaries of nation's production capacity while directly targeting welfare of the people. When human being started to produce more products than his needs, he exchanged them with others. This can be identified first step of the trade, "barter system". Finally the barter system led to a trade system with connects local and international merchants. Today international trade mainly divided into two main categories. They are trade in goods and trade in services.

Theories relating to the comparative advantage are clearly built on the basis of trade in goods. Then there is an issue, whether these theories can apply for trade in services because trade in goods and trade in services are conceptually and physically different each other. According to the 2008 SNA (System of National Accounts) the term services defined as follows (2008 SNA, para.6.17):

"Services are the result of a production activity that changes the conditions of the consuming units, or facilitates the exchange of products or financial assets. These types of service may be described as change-effecting services and margin services, respectively. Change-effecting services are outputs produced to order and typically consist

of changes in the conditions of the consuming units realized by the activities of producers at the demand of the consumers. They can also be referred to as "transformation services". Change-effecting services are not separate entities over which ownership rights can be established. They cannot be traded separately from their production. By the time their production is completed, they must have been provided to the consumers."

In addition to the above, qualify transformation services defined in para 6.18 and 6.19 as follows:

The changes that consumers of services engage the producers to bring about can take a variety of different forms as follows:

a) Changes in the condition of the consumer's goods: the producer works directly on goods owned by the consumer by transporting, cleaning, repairing or otherwise transforming them;
b) Changes in the physical condition of persons: the producer transports the persons, provides them with accommodation, provides them with medical or surgical treatments, improves their appearance, etc.;
c) Changes in the mental condition of persons: the producer provides education, information, advice, entertainment or similar services in a face-to-face manner.

The changes may be temporary or permanent. For example, medical or education services may result in permanent changes in the condition of the consumers from which benefits may be derived over many years. On the other hand, attending a football match is a short-lived experience. In general, the changes may be presumed to be improvements, as services are produced at the demand of the consumers. The improvements usually become embodied in the persons of the consumers or the goods they own and are not separate entities that belong to the producer. Such improvements cannot be held in inventories by the producer or traded separately from their production.

The 2008 SNA (para. 6.21) defines margin servicesas follows:

"Margin services result when one institutional unit facilitates the change of ownership of goods, knowledge capturing products, some services or financial assets between two other institutional units. Margin services are provided by wholesalers and retailers and by many types of financial institutions. Margin services resemble change-effecting services in that they are not separate entities over which ownership rights can be established. They cannot be traded separately from their production. By the time their production is completed, they must have been provided to the consumers."

(Manual on statistics of international trade in services 2010 (MSITS 2010) also agreed with above definitions. Therefore throughout this study services are limited to above conceptual framework.)

SNA 2008 (para 6.15) defined goods as follows:

"Goods are physical, produced objects for which a demand exists, over which ownership rights can be established and whose ownership can be transferred from one institutional unit to another by engaging in transactions on markets. They are in demand because they may be usedto satisfy the needs or wants of households or thecommunity or used to produce other goods or services. Theproduction and exchange of goods are quite separateactivities. Some goods may never be exchanged whileothers may be bought and sold numerous times. Theproduction of a good can always be separated from itssubsequent sale or resale."

Therefore, these conceptual and physical differences between service and goods make an argument application of comparative advantage theory for trade in services. The theories relating to comparative advantage are based on commodity base not services base. In other words those theories explain theoretical background for comparative advantage of trade in commodities. But Porter M.(1990) explained in his noble book "The competitive advantage of nations", the competitive advantages of services are also determined by the same forces in manufacturing.

However both Hindley and Smith (1984) and Deardorff (1985) verified that the law of comparative advantage theory can be applied for trade in services. Furthermore, pioneers in the study of trade in services, Sazanami and Urata (1990) developed an econometric model to emphasis the significance of comparative advantage of trade in services. This model also verified the usage of comparative advantage theory for trade in services. According to these empirical evidence and results it is concluded that dilemma between comparative advantage and service in trade has solved with proper theoretical and physical basis. However scope of this paper is not focus to verify the above mentioned theoretical background.

There are many empirical measures of comparative advantage. Balance et al., (1987) summarize the available empirical measures as; the ratio of exports, the ratio of imports, the ratio of net trade, the ratio of production to consumption, the ratio of actual net trade to expected production and the ratio of the net trade from the total trade etc.

Yoon et al., (2006) analyze comparative advantages of China, Japan, and Korea (CJK) in service sector. One way to compare comparative advantages among CJK is to calculate TSI (Trade Specialization Index) and RCA (Revealed Comparative Advantage) against the world by using the international service trade statistics such as IMF (International Monetary Fund) BOP (Balance of Payment) statistics, which records export and import of international trade in service by sectors.

Kużnar (2007) examined that whether developing countries are competitive in the field of international trade in services. There were three indices used for the study and revealed comparative advantage (RCA) applied to measure competitiveness of trade in services.Bobrica and Miclaus (2007) investigates the international competitiveness of the EU – 25, Romanian and Bulgarian service trade and to subsequently determine the competitive position of Romania and Bulgaria on the EU-25 service market. The paper was based on a multilevel model enclosing a aggregation of four indices. One of them is Revealed Comparative advantage (RCA) which utilized for measure international competitiveness.

Wőrz (2008) analyzed Austria's competitive position within the European Union using RCA index. The paper identified not only strengths and weaknesses of Australian competitiveness but also determinants of competitiveness in services using econometric model which based on RCA index.Burange et al (2009) examined services in India, its composition, revealed comparative advantage of various sectors of services and compare Indian growth in the pre and post liberalization period. The results suggested that services exports in the post-reform period have directed significant growth in all service sectors in India. Also it focused the service areas which need to diversify to increase comparative advantage in services.

Amador and Cabral (2009) studied relative specialization of Portuguese exports of services using RCA and investigated relative behavior of a set of countries which were taken as a benchmark in the period 2001 – 2006. The paper concluded that Portugal has a clear and sustained comparative advantage in travel services over the last decade. Also communications services have high value over the period. In the period 2001 – 2006, Portuguese exports of services are also relatively specialized in construction services and in personal, cultural and recreational services.

Barattieri (2010) analyzed comparative advantage in services of the U.S. in the period 1994 - 2005 and the paper adopted RCA for assess the presence of comparative advantage. Evolution of the RCA highlighted that the U.S. has a comparative advantage in services compared to Japan, China and Germany which are largest creditors of the U.S. Yan and Jiansuo (2012) empirically proved that service trade in China complies with the law of comparative advantage by employing RCA index. It was found that for most years, China only has reveled comparative advantage in three services sectors.

METHOD

Revealed Comparative Advantage

The revealed comparative advantage index used in this paper is based on Balassa's (1965) method. This index identifies comparative advantage service sectors in a nation, by comparing its trade in services with the world average.
The ratio is defined as:

$$RCA_{ih} = (X_{ih}/X_{it})/(X_{wh}/X_{wt})$$

Where;
RCA_{ih}=revealed comparative advantage ratio for country i in service h,
X_{ih}= country i's exports of service h ,
X_{it}= total exports of country I ,
X_{wh}= world exports of service h and
X_{wt}= total world exports

The RCA index has two components. The numerator is the contribution on particular trade in service of a nation compared to the total service export in the nation and the denominator is the contribution of that trade in service in the world compared to the total service export in the world. When RCA equals 1 for a given sector in a given country, the percentage share of that sector is identical with the world average.

When RCA is above 1, the country is said to be specialized in that sector and when RCA is below 1, the country does not have specialize in that sector. The weighted average of the RCAs of a country should by definition add up to 1. From a methodological point of view, the RCA index was originally devised to compare relative specialization in different sectors nation-wise that is, to allow comparison of the dominance of different sectors of a given nation.

Dalim et al., (1998) analyzed the disadvantage of an inherent risk of lack of normality in Balassa's index because it takes values between zero and infinity with a (weighted) average of 1.0. Cantwell (1989) addressed this issue by testing for skewness and kurtosis of his data sample. Verspagen (1994) and Fagerberg (1994) analyzed this problem, and they propose a statistical approach to solve it. However this paper used the solution which was presented by Laursen and Engedal (1995). It is known as the "Revealed Symmetric Comparative Advantage", (RSCA) which is formulated as follows:

$$RSCA_{ih} = (RCA_{ih} - 1) /(RCA_{ih} + 1)$$

Dalum et al., (1998) illustrate this formula as follows:

"The RSCAs fall between +1.0 and -1.0 and avoid the problem with zero values which occur in the logarithmic

transformation (when an arbitrary constant is not added to the RCA). The method has got the economic advantage of attributing changes below unity (zero in this case) the same weight as changes above unity. Further, the measure is the best of the alternatives discussed with respect to normality. Data sets for more than half of the countries are normally distributed according to the Shapiro-i[ks-test."

Trade in Service Balance Index (TSBI)

Lafay (1992) and Widodo (2010) employed the trade balance index (TBI) to analyze whether a nation has specialization in export or in import for a specific group of products. TBI was used by Widodo as one of the crucial variables for analyzing the catching-up economies' comparative advantage. Therefore for this paper TSBI was tested in this paper to analyze for the same objective in service trade.

TSBI is simply formulated as follows:

$$TSBI_{ih} = (X_{ih} - M_{ih}) / (X_{ih} + M_{ih})$$

Where ;
TBI_{ih} = trade balance index of country *i* for group of service *h*; ,
X_{ih} = country i's exports of service h ,
M_{ih} = country i's imports of service h

Widodo (2010) defined the meanings of the values as follows:

"Values of the index range from -1 to +1. Extremely, the TBI(in this paper TSBI) equals -1 if a country only imports, in contrast, the TBI equals +1 if a country only exports. Any value within -1 and +1 implies that the country exports and imports a commodity simultaneously. A country is referred to as "net-importer" in a specific group of product; where the value of TBI is negative, and as "net-exporter" where the value of TBI is positive."

In order to analyze comparative advantage and specialization in export and import of service in trade, Revealed Symmetric Comparative Advantage (RSCA) and Trade Balance Index (TSBI) were employed in this paper. Yoon and Kim (2006) used same formula under the label "Trade Specialization Index (TSI)", to analyze a bilateral competitiveness. However TSBI which was used in this paper is based on Widodo (2010)

Service Mapping

Widodo (2010) employed Product Mapping as an analytical tool toevaluate comparative advantage of a nation. According to the Product Mapping concept, the analytical tool should be built up by combining two variables. As mentioned in the paper earlier, the two variables are,Revealed Symmetric Comparative Advantage (RSCA) and Trade in Service Balance Index (TSBI). Services can be categorized into four groups namely A, B, C and D, as illustrated in Figure 3.1.

Figure 3.1 – Service Mapping

RSCA >0	Group B: Comparative Advantage Net-importer (RSCA >0 and TSBI <0)	Group A Comparative Advantage Net-exporter (RSCA >0 and TSBI >0)
RSCA <0	Group D: Comparative Disadvantage Net-importer (RSCA <0 and TSBI <0)	Group C: Comparative Disadvantage Net-exporter (RSCA <0 and TSBI >0)
	TSBI <0	TSBI >0

Source: Compiled by authors based on Widodo (2010) Product Mapping

Data

This research study is based on the data on exports and imports published by the United Nations Service Trade Statistics Database (UN SERVICE TRADE) and International Trade Center (ITC) for the period of year 2000 to 2010. These databases are

related to the UN Statistical division and provide access to information and data on Statistics of International Trade in Services (SITS).

The Manual on Statistics of International Trade in Services (MSITS) published in 2002 and 2010 provides an internationally agreed framework for the compilation and reporting of statistics of international trade in services in a board sense it addresses the needs, includes those of international trade negotiations and agreements, for more detailed, more comparable and more comprehensive statistics on this type of trade in its various forms.

MSITS (2002) provides the following statistical systems and classifications related to international trade in services:

- BPM5 - Fifth edition of the IMF Balance of Payments Manual
- The 1993 SNA - System of National Accounts, 1993
- ISIC , Rev 3 - International Standard Industrial Classification of All Economic Activities, Revision 3
- CPC , Version 1 – Central Product Classification , Version 1

Also MSITS (2010) provides the following statistical systems and classifications related to international trade in services:

- BPM6 – Sixth edition of the Balance of Payments and International Investment Position Manual
- The 2008 SNA – System of National Accounts , 2008
- ISIC , Rev 4 - The International Standard Industrial Classification of All Economic Activities , Revision 4
- CPC , Version 2 – Central Product Classification , Version 2

According to the MSITS (2002 & 2010):

"BPM5 and BPM6 statistics are arranged within a coherent structure to facilitate their use and adaptation for many purposes, including policy formulation, analytical studies, and projections, bilateral comparisons of particular components or total transactions, and regional and global aggregations."

EBOPS and EBPOS 2010 (The Extended Balance of Payments Services) is a disaggregated sub system of the BPM5 and BPM6 services classification respectively. These sub systems contain main categories that are identical to the 11 major BPM5 in EBOPS and 12 major BPM6 in EBOPS 2010 standard services components, as well as further details that are consistent with BPM 5 and BPM6. However the relevant databases familiar with BPM5 and EBOPS subsystem. Therefore the paper used EBOPS sub system of BPM5 to obtain data for this study. (Detailed correspondence between BPM5 and BPM6 can be obtained the following link: http://www.imf.org/exte rnal/pubs /ft/bop/2007/pdf/matrix.pdf). Part 3 of volume 62 of the Balance of Payments statistics Yearbook (BOPSY Yearbook) presents country notes (CNs) that describe data sources and completion practices used by individual country members in compiling their balance of payments and international investment position (IIP) statistics.(Sri Lankan information is included in annex 01)

DATA ANALYSIS

In order to analyze Sri Lanka's export in services, it is required to identify the trends of total service exports and the share of Sri Lanka's exports of service compared to the world. Sri Lanka's share in the world export of services was quite small when compared to South Asian countries like India and Pakistan (Table 4.1). The share fluctuated within the range of 0.03 percent to 0.09 percent. Sri Lanka has experienced a drop in the share of export of services in the world from the year 2001 to 2008.

However, from 2009 onwards,the share of service exports in Sri Lanka has depicted growth (Table 4.2). It is vital to examine the share of export of services under more categories. The UN Service Trade classifies trade of services in eleven categories. Following Tables (Tables 4.3, 4.4, and 4.5) summaries the share of exports services in Sri Lanka and the world according to EBOPS classification. In the case of world exports of service there have been significant positive changes in the finance service, computer and information service, royalties and license fees and other business services. Services in transportation, travel, communication, construction and insurance have slightly fluctuated during the desired time period (Table 4.3).

In terms of share of service exports in Sri Lanka, transportation provides a significant contribution to exports of services (Table 4.4). The growing significance of transportation exports is in line with world trends. During the period of the cease fire agreement between Sri Lankan government and LTTE, travel export accounted for more than 25 percent of total exports from year 2002 to 2005. In 2005 Sri Lanka enjoyed a share 53.6 percent of total exports from travel. Sri Lanka is not experiencing growth in construction exports withthe world trends. Insurance and computer and information service related exports are in line with world trends. The share of computer and information services when compared to total service exports has been within range of 3 percent to 12 percent with an increasing trend. Communication services provided significant contribution to Sri Lanka's service export from year 2000 to 2005. However, from year 2006 onwards there were considerable setbacks in communication service. World export of communication service did not reflect significant fluctuations as observed in the Sri Lankan scenario. From 2004 onwards other business services show continuous improvement in world share of export. Sri Lanka does not export financial services, royalties and license fees or personal, cultural and recreational services.The RSCA index for Sri Lanka is illustrated in Table 4.6.

Transportation: Transport covers the process of carriage of people and objects from one location to another as well as related supporting and auxiliary services and rental of carriers with crew (MSITS 2002 and 2010). It is directly linked with trade of merchandise and it involves air, ship and other transport of passengers and goods. Export of transport service in Sri Lanka comprises a major share of Sri Lanka's total service exports. On the other hand,transportation exports have comparative advantage in the entire period of the study. It has seen rapid growth in terms of the comparative advantage from year 2002 to 2009 (Table 4.6)

Travel: Travel is defined to cover goods and services for own use or be given away, acquired from an economy, by non-residents during visits to that economy (MSITS 2002 and 2010). Travel services are the second largest contributor to Sri Lankan service exports. Based on the MSITS (2010), travel services consist of collection of commodities and services consumed by travelers in the foreign countries during their stay of less than one year. After cessation the civil war in 2008, Sri Lanka focuses more on tourists' attractions. The number of foreigners arriving in Sri Lanka has increased continuously from 2008, as can be seen in Table 4.7.

Sri Lanka is thus seen as a leading tourist destination by the international community abroad. Travel exports also have comparative advantage from year 2003 to 2010. However, Sri Lanka recorded a 46.1 percent tourist arrival growth in 2010, but it accounted lower reveal comparative advantage when comparing the year 2009. Sri Lanka lost its

competitiveness in travel exports even there was growth in share of travel service exports in the world.

Communication: The Communication sector is one of the fastest growing segments in the dynamic business world. From year 2000 to 2004 there was a declining tendency in the share of communication exports in the world.However, from 2005 the share of communication exports gradually increased. On the other hand, in the Sri Lankan context it has declined from year 2003 to 2008 (Table 4.4). Though Sri Lanka has dropped down its share of exports it seems to have comparative advantage in communication exports when considering the RSCA index in communication exports (Table 4.6).

Construction: Construction covers the creation, management, renovation, repair or extension of fixed assets in the form of buildings, land improvements of an engineering nature and other constructions such as road, bridges and dams (MSITS 2002 and 2010). As per the UN Service Trade data, the share of construction services in total service exports in Sri Lanka has been in the range of 1.7 to 3.02 (Table 4.4). It seems to have a declining contribution to Sri Lanka's export earnings. The RSCA index also offers evidence for declining comparative advantage in construction exports, and in 2010 construction service exports record comparative disadvantage.

Insurance : According to the MSITS (2002 and 2010) Insurance services means that the insurance services provides individual units (governments, enterprises and households) exposed to certain risks with financial protection against the consequences of the occurrence of specific events. In the global context financial and insurance services are the fastest emerging sectors in the business world. Although Sri Lanka is not involved in financial exports, the insurance exports share is nearly 4 percent in export earnings. Sri Lanka has enjoyed comparative advantage in insurance exports form year 2000 to 2010 as reflected in the RSCA in insurance exports (Table 4.6). The value of RSCA insurance exports fluctuated from time to time but they are in line with world trends. Thus, there is opportunity for Sri Lanka to enhance the share of insurance exports.

Computer and Information: According to MSITS (2002 and 2010) computer services consist of hardware and software related services and data processing services. Information services are divided into news agency services and other information services. Computer and information services constitute nearly 10 to 12 percent of service export earnings from 2008 onwards. Sri Lanka displays steadily growing competitive advantage from 2001 to 2009. However, in 2010 there was a dip in RSCA index in computer and information exports by 45 percent while the world share reflected nearly 52 percent growth. Therefore more attention has to be drown on computer and information exports, not only because of its importance in world exports, but also due to the comparative advantage that Sri Lanka can offer.

Other business services: EBOPS 2010 identifies three sub-components of other business services: research and development services, professional and management consulting services and technical, trade-related and other business services. In 2000, other business service exports in Sri Lanka accounts for 19.35percent of total service exports (Table 4.4). However, Sri Lanka has experienced a drop in the share of other business services; and a comparative disadvantage throughout the decade.

Service Mapping

The RSCA and TSBI are used to construct the service mapping. Based on the service mapping, services can be categorized into four groups A, B, C and D as depicted in Figure 3.1. The upper extreme point indicates export services with a higher comparative advantage and a portion of net exporter while the lower extreme point shows the export services with comparative disadvantage and net importer. Table 4.8 summarizes the RSCA index and TSBI in trade of services in eleven categories.Further illustration of the Figure 3.1 according to the Groups A, B, C and D based on year 2000, 2005 and 2010 is discussed below.According to service mapping in year 2000 (Figure 4.1), Even though transportation, communication and insurance services have comparative advantage, they are highly depend on importing input services. Because according to the calculation those services become net importer category. Therefore, those services are categorized into group B.

Sri Lanka does not enjoy comparative advantage in travel services. However, travel service has positive trade balance and is categorized into group C. Travel is only one service category which record positive TSBI value in 2000. Other business and government services have neither comparative advantage nor export specialization. So, they are categorized into group D. Out of the eleven service categories, there is no service which could be included group A in 2000. Construction service is not traded in 2000. Travel, communication, construction and computer and information services have both comparative advantage and export specialization in 2005. They are categorized into group A (Figure 4.2). Sri Lanka shows improvement in those three service areas from year 2000 to 2005. Though transportation and insurance services have comparative advantage still they remain as net importers in trade in service.

Sri Lanka has become anexporter of construction and computer and information services since 2001. In 2005, they show comparative advantage and also Sri Lanka became a net exporter. Construction and computer and information services record the highest TSBI in 2005. As specified in year 2000, other business and government services remain in group D.

There are three service categories in group A out of 11categories of services in 2011 (Figure 4.3). Travel, communication and computer and information services were able to maintain both competitiveness and export specialization from 2005 to 2010. Sri Lanka lost competitiveness in construction service exports, but has been able to keep the position of export specialization. So, construction services are categorized into group C in 2010. Similar to situation in 2005, construction and computer and information services record highest TSBI.Throughout the decade transportation and insurance services display reveal comparative advantage but they remain in group B in the year 2000, 2005, and 2010. Sri Lanka is still struggling to change the position of net importer in transport and insurance service exports. Similar to year 2000 and 2005 other business and government services keep their place in group D in 2010.

DISCUSSION AND CONCLUSION

The main purpose of this study is to analyze the export service portfolio in Sri Lanka based on the principles of comparative advantage, and examine whether or not the country exports the services which have comparative advantage. This paper also attempts to identify comparative disadvantage products in Sri Lankan export product portfolio. The purpose of such an analysis is to obtain a comprehensive view of the comparative advantage in service exports that Sri Lanka enjoys

compared with the rest of the world.RSCA and TSBI which were computed based on United Nations Commodity Service Trade Statistics Database (UN-SERVICE TRADE) and International Trade Center (ITC), are used to assess the competitiveness and trade specialization of Sri Lanka's service trade for a decade period from 2000 to 2010. Along with EBOPS classification, the country enjoys comparative advantage in exports of transportation, travel, communication, construction, insurance and computer and information services.

According to the findings of this study, sea and air transportation service exports record highest comparative advantage. The analysis emphasizes that transportation service provides the highest contribution in Sri Lankan service export income, but TSBI value is negative. Though transportation service export has comparative advantage it is not a significant foreign income earner. A similar conclusion can be applied to insurance service export as well.Travel, communication, construction and computer and information display both competitiveness and export specialization throughout the period of the study.However, construction and computer and information services have the highest TBI. Hence, these are the service categories for which need attention. The study is revealed that compared to year 2000, Sri Lanka is able to increase its comparative advantage and export specialization in service sector by 2010. In 2000, there is no service category included into group A in product mapping, but in 2010 it records three service categories in group A. However the strength of competitiveness in services export categories gradually declined from 2000 to 2010. Along with EBOPS classification, Sri Lanka has limited its service exports to a narrow range. Sri Lanka is not able to make even a slight attempt to export financial, royalties and license fees, and personal, cultural and recreational services to international market.Policy makers of Sri Lanka should focus their higher attention for service exports in Group "B" and Group "C". Because exports in Group "B" have comparative advantage but they are net importers. It means those industries should not use proper strategies to increase earnings even if they have competitiveness in the international market. Also exports in Group "C" are foreign income creators but they do not have competitiveness in the global market. Therefore, the policy makers should reconsider their policies and procedures for encouraging those service categories.Developing conducive policies and procedures is not an ultimate strategy to improve competitiveness in service exports in Sri Lanka. The change in the international market conditions and other economic and political issues are also needed to accelerate the growth in service export sector. Innovations and flexible market structure will help to adopt dynamic market condition. As Burange et al., (2009) suggests Sri Lanka needs to improve the recognition of its professional qualifications like; engineering, law, medicine, financial consulting, academicand research and development at the international level. Transparency of administrative system needs to be improved and bureaucracy needs to be reduced. Language and interpersonal skills have to be developed through the education system. Safeguard in the independent of judiciary, strengthen intellectual property right, reforming data security and privacy protection, allocating more funds for research and development and developing infrastructure for all sectors will generate direct as well as indirect advantages to improve competitiveness and export specialization in services export in Sri Lanka.

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