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**Comparative Advantage in International Trade:
A Study Based on Leading Exports in Sri Lanka**

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Abstract

The export and import economic policy has both advantages and disadvantages. In Sri Lanka, however, export and import economy led to unsymmetrical export portfolio, which has continuously outcome for deficit trade balances. The main objective of this study is to identify international competitiveness of Sri Lankan exports. Revealed Symmetric Comparative Advantage (RSCA) indices use to identify the trade pattern, the sectors in which an economy has a comparative advantage, by comparing the country of interests' trade profile with the world average. Trade Balance Index (TBI) is employed to analyze whether a country has specialization in export (as net-exporter) or in import (as net-importer) for a specific group of products. This paper concludes that even though, Sri Lanka has comparative advantage for leading exports, it does not provide significant contribution to overcome negative impact of comparative disadvantage and net import products.

Key words: Comparative Advantage, Revealed Symmetric Comparative Advantage, Trade Balance Index, Product Mapping

Introduction

Sri Lanka experienced diverse economic policies during different stages: prior to the colonization (before 1505), colonial period (1505 – 1948), after the independence (1948 – 1977) and economic liberalization, and its aftermath (1977 – to date). Prior to colonization, Sri Lanka experienced self-sufficient economic system which categorize as a mercantilism international trade policy, and the country was a main international trade hub in the Indian Ocean. However, during the colonial period, Sri Lankan economy was influenced to shift to an export and import economy discarding the self-sufficient economic system. The export and import economic policy has both advantages and disadvantages. In Sri Lanka, however, export and import economy led to unsymmetrical export portfolio which has continuously earned deficit trade balances. After 1977, Sri Lanka followed an advanced export diversification policy, which promoted more industrial products. However, due to lack of backward industries and inherent weaknesses in export sector, Sri Lanka continues to encounter issues in its international trade which demonstrated macroeconomics instability.

Table 1 : Composition of exports

Item	1948	1960	1970	1977	1985	1986	2000	2010
Agricultural Products	98.6	94.4	91.7	79.3	52.5	46.3	18.2	24.6
Tea	63.1	59.8	55.0	52.8	33.1	27.2	12.7	16.6
Rubber	15.1	20.7	22.0	13.4	7.1	7.7	0.5	2.1
Coconut	17.8	13.9	12.0	8.0	8.5	7.0	2.2	2.1
Other	2.6	n.a	3.2	5.1	3.8	4.4	0.8	3.9
Industrial Products	n.a	n.a	2.0	13.9	39.5	46.6	77.6	74.3
T & A	n.a	n.a	0.3	2.0	22.0	28.3	54.0	42.2
Petroleum Products	n.a	n.a	0.9	9.0	10.7	6.9	1.8	2.6
Other	n.a	n.a	0.9	3.0	6.8	11.4	21.8	29.5
Mineral Products	n.a	n.a	0.9	4.5	2.4	3.5	1.8	1.1
Unclassified	1.4	9.5	5.4	3.8	5.6	3.7	2.5	0.0

Source : Central Bank reports 1950 – 2010

Sri Lankan exports in 1948 were substantially dependent on agricultural sector due to the influence of colonization. Today, even after 60 years of independence, the figures (Table 01) highlighted that the country has not been deviated from the rooted practice. According to Table 01, in 1986, there was a significant change in composition of exports. Due to higher fluctuations of tea prices at the world market, textile and apparel sector became the highest contributor in exports. By 2010, textiles and apparels and tea respectively, constituted 42.2% and 16.6% out of total export of Sri Lanka. Even though, industrial products contribute to a significant portion of the exports, agricultural sector (mainly tea) provides the highest net foreign earning of Sri Lanka. Therefore, it is important to analyze export product portfolio in Sri Lanka that based on principles of comparative advantage. Hence, research problem of this study is to examine whether or not Sri Lanka exports the products with comparative advantage. Accordingly, the main objective of this research is to identify the international competitiveness of Sri Lankan exports. However, the following sub objectives are also expected to be achieved:

- To identify comparative disadvantage products in Sri Lankan export product portfolio.
- To identify specialization in exports or imports.

Literature Review

Literature review of this study is mainly divided into two sections; international trade theories and the empirical studies on comparative advantage theory.

Trade Theories

The first theory of international trade, mercantilism, emerged in the mid 16th century in England. The principle assertion of mercantilism was that gold and silver, those were the mainstays of national wealth and essential to vigorous commerce. At that time, gold and silver were the currencies; a country could earn gold and silver by exporting goods. The main tenet of mercantilism was that in a country's best interests to maintain a trade surplus, to export more than its imported. The mercantilism doctrine advocated that government intervention should be there to achieve a surplus in the balance of trade. The mercantilism viewed trade as a zero-sum game. (A zero-sum game is one in which a gain by one country results in a loss by another.)

It was left Adam Smith and David Ricardo to show the shortsightedness of the mercantilism approach and to demonstrate that trade is a positive-sum game, or a situation in which all countries can benefit. Adam Smith criticized the mercantilist assumption that trade is zero-sum game. Smith argued that countries differ in their ability to produce goods and services efficiently. According to Smith, countries should specialize in the production of goods for which they have an absolute advantage and then trade these for goods produced by other countries. Thus, a country has an absolute advantage in the production of a product when it is more efficient than any other country in producing it. Smith's basic argument, therefore, is that a country should never produce goods at home that it can buy at a lower cost from other countries.

Ricardo (1817) took Adam Smith's theory one step further by exploring what might happen when one country has an absolute advantage in the production of all goods. Smith's theory of absolute advantage suggested that such a country might derive no benefit from international trade. David Ricardo firstly introduces the concept of comparative advantage, the term "comparative" means relative not necessarily absolute.

According to the law of comparative advantage, even if one nation is less efficient than the other nation in the production of both commodities, there is still a basis for mutually beneficial trade. The nation should specialize in the production and export of the commodity in which the absolute disadvantage is smaller and import the commodity in which the absolute disadvantage is greater. The Ricardian model is based on several strict assumptions: (1) fixed endowment of (identical) resources, (2) factors of production are completely mobile between alternative uses within a country, (3) factors of production are completely immobile externally, (3) a labor theory of value is employed in the model, (4) the level of technology is fixed for both countries, (5) unit costs of production are constant, (6) there is full employment at any given time (7) perfect competition at the domestic market, (8) no government-imposed obstacles to economic activity, (9) internal and external transportation costs are zero, (10) for simple analysis: a 2-country, 2-commodity world.

Ricardo's theory stressed that comparative advantage arises from differences in productivity. Differences in labour productivity between nations underlie the notion of comparative advantage. Swedish economists Eli Heckscher (1919) and Bertil Ohlin (1933) put forward a different explanation of comparative advantage (Salvatore, D., 2004). They argued that comparative advantage arises from differences in national factor endowments. By factor

endowments they meant that the extent to which a country is endowed with such resources as land, labour, and capital. Nations have varying factor endowments, and different factor endowments explain differences in factor cost; specially, the more abundant factor, the lower its cost. The Heckscher-Ohlin theory (H-O theory) predicts that countries will export those goods that make intensive use of factors that are locally abundant, while importing goods that make intensive use of factors that are locally scarce. The H-O theory argues that the pattern of international trade is determined by differences in factor endowments, rather than differences in productivity.

Raymond Vernon initially proposed the product life-cycle theory in the mid 1960s. Vernon's theory was based on the observation that for most of the 20th century a very large proportion of the world's new products had been developed by United State (U.S) firms and sold first in the U.S market. The demand for most new products tends to be based on non-price factors. Consequently, firms can charge relatively high prices for new products (Porter, M., 1990).

Vernon further argued that early in the life cycle of typical new product, while demand is starting to grow rapidly in the developed countries is limited to high-income groups. The limited initial demand in other developed countries does not make it worthwhile for firms in those countries to start producing the new product, but it does necessitate some exports from the initiator to those countries. Over time, demand for new product starts to grow in other developed countries; it becomes worthwhile for foreign producers to begin producing for their home markets and limit the potential for exports from the initiator. Now, the product becomes more standardized, and the price becomes the main competitive weapon. As this occurs, cost considerations starts to play a greater role in the competitive process. If other developed countries' labour cost is lower than the initiator, they might now be able to export to it.

The cycle by which the initiator lost its advantage to the other developed countries might be repeated once more, as developing countries begin to acquire a production advantage over developed countries. Thus, the advantage of production initially switches from the initiator to other developed countries and then more from those countries to developing countries. The consequence of these trends for the pattern of world trade is that over time the initiator switches from being exporter of the product to an importer of the product as production becomes concentrated in low-cost foreign locations.

According to Krugman, and Obstfeld (2005), the new trade theory began to emerge in the 1970s when a number of economists pointed out that the ability of firms to attain economies of scale has important implications for international trade success. Economies of scale are unit cost reductions associated with a large scale of output. Then the new trade theory makes two important points. First, through its impact on economies of scale, trade can increase the variety of goods available to consumers and decrease the average costs of those goods. Second, in those industries, when the output required to attain economies of scale represents a significant proportion of total world demand, the global market may only be able to support a small number of enterprises. Thus, world trade in certain products may be dominated by countries whose firms were first movers in their production.

During the 1980s, economists such as Paul Krugman stresses that in some cases, countries specialize in the production and export of particular products not because of underlying differences in factor endowments, but because in certain industries, the world market can support only a limited number of firms. In such industries, firms that enter in to the market first are able to build a competitive advantage that is subsequently difficult to challenge (first-mover advantage).

In 1990, Michael Porter attempted to determine why some nations succeed and others fail in international competitions. Like the work of the new trade theories, Porter's work was driven by a belief that existing theories of international trade told only part of the story. Porter theorizes that four broad attributes of a nation shape the environment in which local firms compete, and these attributes promote or impede the creation of competitive advantage (Porter, 1990). These attributes are called as diamond;

- Factor endowments – a nation's position in factors of production such as skilled labour or the infrastructure necessary to compete in a given industry.
- Demand condition – the nature of home demand for the industry's product or service.
- Relating and supporting industries – the presence or absence of supplier industries and related industries that are internationally competitive.
- Firm strategy, structure and rivalry – the conditions governing how companies are created, organized and managed and the nature of domestic rivalry.

Porter argues that firms are most likely to succeed in industry segments where the diamond is most favorable. The effect of one attribute is contingent on the state of others. For an

example, the favorable demand conditions will not result in competitive advantage unless the state of rivalry is sufficient to cause firms to respond to them. Based on Porter's theory, country should be exporting products from those industries where all four components of the diamond are favorable, while importing in those areas where the components are not favorable.

Empirical Studies

There are many empirical measures of comparative advantage. Balance et al., (1987) summarize the available empirical measures as follows; the ratio of exports (this index varies from 0 to 1 and basically shows the portion of domestic production that is exported. Exportable commodities have index greater than zero and non-exportable commodities have the index less than zero), the ratio of imports (this index represents the portion of imports in consumption), the ratio of net trade (this index shows the portion of difference between exports and imports), the ratio of production to consumption (this index basically shows the portion of domestic production from the total consumption), the ratio of actual net trade to expected production, the ratio of the deviation of actual from expected production to expected production, the ratio of the deviation of actual from expected consumption to expected production, the ratio of the net trade from the total trade and the ratio of actual exports to expected exports. (The applicability of the above mentioned measures depends upon the availability of data required)

Revealed Comparative Advantage (RCA) is one of measures of international competitiveness and has gained general acceptance (Utkulu and Seymen, 2004). It is grounded in conventional trade theory and measures a country's exports of a commodity relative to that of a set of countries. The RCA analysis is largely based on contributions of Balassa (1977) and Vollrath (1991).

The concept of revealed comparative advantage was introduced by Bela Balassa in 1965 to identify the relative trade performances in countries. In this model, it assumes that the commodity pattern of trade reflects inter-country differences in relative costs as well as in non-price factors. Balassa (1977) analyzes the revealed comparative advantage of the major countries; United States, Canada, European Common Market...etc.) in manufactured goods. Balassa used export and export-import ratios data to measure RCA of major industrial countries with in the period from year 1953 to 1971.

Tri Widodo (2010) reviews the theory and various empirical measures of comparative advantage, and argues that for the catching-up economies, like ASEAN countries, the meaning of “leading exported products” could be examined from the two points of view i.e. international competitiveness and country’s trade balance. Further, “Products mapping” is used as an analytical tool for analyzing comparative advantage of the catching up economies. The paper concludes that in the cases of ASEAN countries, the higher the comparative advantage for a specific product, the higher the possibility of the country to become net-exporter. This finding strongly supports for the theory of comparative advantage.

The revealed comparative advantage (RCA) is a widely used index to seek the competitiveness and its progress. Mika Widgrén (2004) investigates comparative advantage and its development across selected Asian, American and European countries. By doing so, the Balassa index of revealed comparative advantage is calculated. Serin and Civan (2008) use the revealed comparative advantage (RCA) and the comparative export performance (CEP) index to seek to quantify the extent to which Turkey has a comparative advantage in the production of tomato, olive oil, and fruit juice at the EU market.

The methodology used by Akhtaret al., (2007) in order to find out the issues facing the footwear industry regarding its competitiveness in the global perspective and its potential for growth is the Revealed Comparative Advantage (RCA). Caiet al., (2007) also use the RCA index to measure Hawaii’s comparative advantage for the 11 products, which essentially compares its competitiveness among those products.

RCA indices, despite their limitations, provide a useful guidance to underlying comparative advantage and offer a further insight into the competitiveness. Fertőand Hubbard (2002) investigate the competitiveness of Hungarian agriculture in relation to that of the EU employing four indices of revealed comparative advantage. As stated, consistency tests implies that the indices are less satisfactory as cardinal measures, but are useful in identifying whether or not country has a comparative advantage in a particular product group.

Batra and Khan (2005) make an attempt to analyze the pattern of comparative advantage for India and China at the global market. Revealed Comparative Advantage (RCA) analysis has been undertaken at both the sector and product levels. The index of RCA (RCAI) is calculated using data on exports for both India and China available from UN-COMTRADE. It is stated that the advantage of using the comparative advantage index is that it considers the

intrinsic advantage of a particular export commodity and is consistent with changes in an economy's relative factor endowment and productivity, the disadvantage, however, is that it cannot distinguish improvements in factor endowments and pursuit of appropriate trade policies of a country.

Based on the flying geese concept, there are two crucial variables for analyzing the economies' comparative advantage, namely, domestic trade-balance and international competitiveness (Widodo, 2010).

Export Development Board of Sri Lanka (EDB) prioritizes Key Product Sectors (KPS) based on various dimensions. They are, Contribution to total exports, RCA, Share in the World Market, NFE, World Trend 2004 – 2008, Sri Lanka Trend 2004- 2008, 2009 Growth Rate, Future Growth 2010- 2015 and the World Rank. According to their calculations Tea (Value is 75) has the highest comparative advantage in Sri Lanka. However, they prioritize KPS in the 1st round based on contribution to total exports.

Chandrasiri (2004) analyzed the inter-links between competitiveness, comparative advantages and labour utilization in the context of small open economy of Sri Lanka. In his study also employed RCA index. According to the findings of the paper, Sri Lanka's RCA is very high in low skilled exports (LSEX). It shows little sign of declining trend between 1980 and 1992, which is a common feature for many of the Asian countries. In the case of Taiwan and Thailand LSEX shows a clear sign of declining and a gradual increase in high skilled exports (HSEX). It is also clearly noticeable that Malaysia is the only country which has higher RCAs in HSEX relative to other countries. Also the study examined the dynamism of RCAs in Sri Lanka over a period of 12 years from 1980 to 1992. The assessment is based on four different types of RCAs: a) emerging comparative advantage, b) continuing comparative advantage, c) continuing comparative disadvantage and, d) declining comparative disadvantage. First, emerging comparative advantage covers two product groups from the clothing sector and continuing comparative advantage includes most of the major exports of Sri Lanka suggesting a relatively static character of comparative advantages. The third, continuing comparative disadvantage has only one product group and declining comparative disadvantage covers two low skilled exports and one high skilled product group. The paper is also an attempt to analyze the changing structure of production and implied changes in comparative advantages from 1962 to 1995. The evidence shows that during this period Sri Lanka has recorded a noteworthy increased in comparative advantages with respect to

product groups such as clothing, rubber, footwear, travel goods, fish preparations, wood products, vegetable material and other labour intensive manufactured goods. Similarly, six different product groups appear to have remained with minimal changes in comparative advantages during the same period. The analysis also shows decreasing comparative advantages between 1962- 1995 with respect to few product sectors such as crude rubber, minerals, perfume and cleaning products. The analysis further confirms the dominance of low skilled exports in determining comparative advantages of Sri Lankan manufacturing and its heavy concentration in textiles (i.e. six sub-sectors within textiles and garments). It also reveals that Sri Lanka has lost its competitiveness with respect to resource-based sectors such as spices, natural rubber and shell fish. In overall terms, the findings reveal the narrow and low skilled competitiveness of Sri Lankan manufacturing. Moreover, the analysis reveals that Sri Lankan competitiveness is heavily depending on labour intensive exports. It is important to note however, the analysis presented so far covers only the manufacturing sector activities. Given the relative significance of service sector activities during the post-liberalization period, the competitiveness analysis needs to be extended to include services sector activities of the national economy. Some of the sub-sectors with high potential for enhancing competitiveness include tourism, business processing and port services.

Thamiam et al., (2011) analyzed the trade competitiveness of agro forestry crop sector in the country. Revealed Comparative Export Advantage (RXA), Relative Trade Advantage (RTA) and Revealed Comparative Advantage (RCA) indices were computed for 580 agro forestry products using data extracted from the trade map at the HS level 6. The 580 products were grouped into 82 categories based on the crop origin. The analysis revealed that on average, 58 products had both relative export advantage and revealed comparative advantage and 124 products had relative trade advantage at HS 6 level during 2001-2008. Among the non-traditional exports, fruit crops (avocado, papaya, citrus, pineapple, cashew, lemon and lime, guava, mango, mangosteen and durian), root crops (manioc and arrowroot), medicinal plants (ginger and turmeric), cardamom, coffee, mushroom, bamboo, vanilla, cocoa and beans were found to be competitive in the world market according to relative trade advantage index. Cinnamon fetched the highest RXA, RTA and RCA values, followed by tea, cloves, coconut and nutmeg. The United Arab Emirates, France and Germany were found to be the major export destinations for the products that are highly competitive.

Mehmood et al., (2012) analyzed to identify the trade potential among major SAARC countries namely: India, Pakistan, Bangladesh and Sri Lanka. Comparative advantage has been checked by using a well-known empirical workhorse technique of Revealed Comparative Advantage (RCA) Balassa (1965) Index for the period of 2001 to 2010 and identified chemicals sector's commodities having vast potential for bilateral or multilateral trade. The results of RCA indices indicated that major SAARC countries have a strong RCA in a few products but vast potential for bilateral or multilateral trade.

Methodology

Leading Exports: Two Points of View

The meaning of "leading export products" could be examined from two different points of view i.e. Trade Balance Index (TBI) and International Competitiveness which is measured by Revealed symmetric Comparative Advantage (RSCA). First, from the domestic point of view, leading exported products are meant as exported products that can give bigger amount of foreign exchange for the domestic economy.

From the standard macroeconomic identity $Y=C+I+G+(X-M)$, where Y, C, I, G, X and M are output, consumption, investment, government expenditure, exports and imports, respectively, it is clearly shown that trade-balance (X-M) is one of the sources of output growth (Y). From this point of view, the higher the earning share of a specific product in the total domestic exports, the more significant the contribution of the exported product to the domestic economy becomes. Such product can be considered as foreign exchange creators for the domestic economy. Second, from international competitive point of view, leading exported products are products that have high comparative advantage in the international market. A specific exported product becomes a leading export if its share in the total world export is dominant. It might be possible that a specific product is not significant as foreign exchange creator but it can compete internationally.

Revealed comparative advantage indices (RCA) use the trade pattern to identify the sectors in which an economy has a comparative advantage, by comparing the country of interests' trade profile with the world average. Revealed comparative advantage (RCA) is one measure of international competitiveness and has gained general acceptance in the literature (Utkulu and

Seymen, 2004). It is grounded in conventional trade theory, and it measures a country's exports of a commodity relative to that of a set of countries.

The RCA index is defined as the ratio of two shares. The numerator is the 'share of a country's total export quantity of the commodity of interest in its total exports volume. The denominator is share of world exports quantity of the same commodity in total world exports volume.

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 product h , X_{ih} =country i 's exports of product h

X_{it} =total exports of country i

X_{wh} =world exports of product h

X_{wt} =total world exports

Since RCA_{ij} turns out to produce values that cannot be compared on both sides of one, Dalumet al.,(1998) and Laursen (1998) have made Revealed Symmetric Comparative Advantage (RSCA) index, 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-Wilks-test.”

The values of $RSCA_{ih}$ index can vary from minus one to one. $RSCA_{ih}$ greater than zero which implies that country i has comparative advantage in group of products h . In contrast,

RSCA $_{ih}$ less than zero imply that country i has comparative disadvantage in group of products h .

Trade Balance Index (TBI)

Trade Balance Index (TBI) is employed to analyze whether a country has specialization in export (as net-exporter) or in import (as net-importer) for a specific group of products (SITC). Lafay (1992) used TBI to measure Revealed Comparative advantage. Recently, in 2010, TBI is used by Widodo as one of the crucial variables for analyzing the catching-up economies comparative advantage.

TBI is simply formulated as follows:

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

Where; TBI_{ih} denotes trade balance index of country i for group of products h ; X_{ih} and M_{ih} represent exports and imports of group of products h by country i , respectively. Values of the index range from -1 to +1. Extremely, the TBI 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.

Therefore, Revealed Symmetric Comparative Advantage (RSCA) by Dalumet al.,(1998) and Laursen (1998) and TradeBalance Index (TBI) by Lafay (1992) are used as the indicators of comparative advantage and of export-import activities.

Product Mapping

By using the RSCA and TBI indexes, the “products mapping” is constructed. Products can be categorized into four groups A, B, C and D as depicted in Figure 1.

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

Trade Balance Index (TBI)

Source: Widodo, 2010

Figure 1: Product mapping

Group “A” consists of products, which have both comparative advantage and export-specialization; Group “B” consists of products, which have comparative advantage but no export-specialization; Group “C” consists of products, which have export-specialization but no comparative advantage; and Group “D” consists of products, which have neither comparative advantage nor export-specialization.

Data

The study uses the data on exports and imports published by the United Nations Commodity Trade Statistics Database (UN-COMTRADE). This database related to the UN Statistical division and provides access to information and data on International Merchandise Trade Statistics (IMTS). There are three major classifications of as follows:

- Standard International Trade Classification (SITC) – This is for analytical purposes. – maintained by United Nations Statistic Division
- Harmonized Commodity Description and Coding System (HS) – This is especially for tariff functions – maintained by World Customs Organization (WCO).
- Board Economic Categories (BEC) – This is used for summarization of trade data in to meaningful end – use categories.

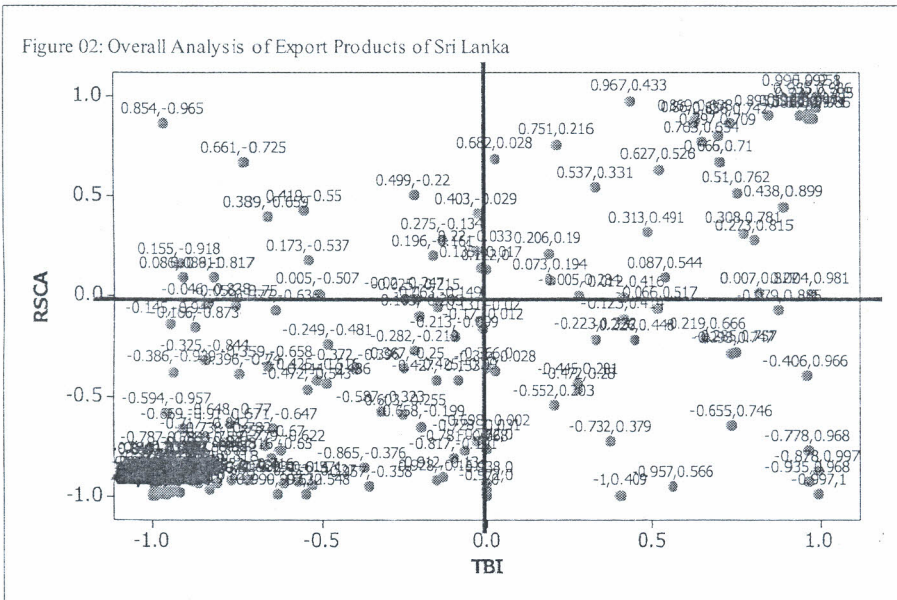
Therefore, out of these three classifications that SITC is available for analytical purposes as above mentioned. Hence, in this research it is selected that 3 digits SITC Revision 3 and 4

and focuses on 260 groups of products which are categorized into 67 divisions. In addition to that the research time frames are year 2000, 2005 and 2010.

Analysis and Finding

The findings of the research focus in depth characteristics of the export portfolio of Sri Lanka. Based on the methodology of this study, 260 products are analyzed and comparison is carried out for the year 2000, 2005 and 2010. Table 02 summarizes the products included in four groups (A, B, C, and D) based on the RSCA and TBI.

Based on the methodology of this study, spread of the RSCA and TBI in 260 products in 2010 shows in figure 02. Accordingly, two extreme points of the model are highly crowded. While the upper extreme point indicates the export products with higher comparative advantage and net exporter, the lower extreme point shows the export products with comparative disadvantage and net importer. Further illustration of the above figure according to the Groups A, B, C and D is discussed below.



Source: Authors' calculation based on UN-

Figure 2: Overall analysis of products of Sri Lanka

Table 02: Summary of products' group

Year	Number of Products in Group					Total
	A	B	C	D	NG	
2000	29	7	15	206	3	260
2005	31	12	25	190	2	260
2010	29	16	24	189	2	260

Source: Compiled data from UN-COMTRADE

Findings of Group A

There are 29 products included in group A in 2000 and it increases to products 31 in 2005. In 2010, Sri Lanka has lost its competitiveness and export specialization in the products of; Oil-seeds and oleaginous fruits (p.c⁴223), Vegetables, roots and tubers (p.c 56) and so on. Table 03 illustrates the products which loss the competitiveness and specialization in international market from 2000 to 2010. However, Sri Lanka is able to enhance the competitiveness and specialization of exported in the products of; Meal and flour of wheat and flour of meslin (p.c 46), Fruit, preserved, and fruit preparations (p.c 58), Tobacco (p.c 121 and 122), Natural abrasives (p.c 277), Wood manufactures (p.c.635), Ships and boats (p.c 793) and Printed matter (p.c 892) throughout the period of study. Table 04 displays the products which Sri Lanka preserves competitiveness and export specialization during the period of study.

Table 3: Products loss competitiveness and specialization from 2000 to 2010

Product Code	Product Name
56	Vegetables, roots and tubers, prepared or preserved, n.e.s.
223	Oil-seeds and oleaginous fruits, whole or broken, of a kind used for the extraction of other fixed vegetable oils (including flours and meals of oil-seeds or oleaginous fruit, n.e.s.)
245	Fuel wood (excluding wood waste) and wood charcoal
335	Residual petroleum products, n.e.s., and related materials
659	Floor coverings, etc

⁴ Product Code, based on Standard International Trade Classification (SITC)

771	Electric power machinery (other than rotating electric plant of group 716) and parts thereof
792	Aircraft and associated equipment; spacecraft (including satellites) and spacecraft launch vehicles; parts thereof
831	Trunks, suitcases, vanity cases, executive cases, briefcases, school satchels, spectacle cases, binocular cases, camera cases, musical instrument cases, gun cases, holsters and similar containers; travelling bags, insulated food or beverages bags, toilet b
897	Jewellery, goldsmiths' and silversmiths' wares, and other articles of precious or semiprecious materials, n.e.s.

Source: Compiled data from UN-COMTRADE

According to the model in figure 03 , higher comparative advantage products (top 5) are; Tea and maté, Vegetable, Textile fibers, Spices, Meal and flour of wheat and flour of meslin, Women's or girls' clothes knitted or crocheted. Tea and maté is not only the product with the highest comparative advantage but the product with the highest contribution to the exports in Sri Lanka as well. This can further be verified from the Table 05. Tea and maté contribute 16.6 % to Sri Lankan export and 0.1176 % to world (out of the total tea and maté export) in 2010. The remaining ranks of the export contribution of Sri Lanka (according to group A) however, differ from the ranking of products considering the RSCA.



Figure 3: RSCA and TBI of Group A

Note: * indicates statistical significance at 5% error level

Table 5 : Top 5 contributed products in Group A (2010)

Product Code	Product Name	RSCA	TBI	Contribution in Group A	Contribution to SL	Contribution to World
74	Tea and maté	0.994	0.957	19.70%	16.60%	0.1176%
845	Articles of apparel, of textile fabrics, whether or not knitted or crocheted, n.e.s.	0.882	0.971	14.23%	12.00%	0.0850%
842	Women's or girls' coats, capes, jackets, suits, trousers, shorts, shirts, dresses and skirts, underwear, nightwear and similar articles of textile fabrics, not knitted or crocheted (other than those of subgroup 845.2)	0.902	0.968	10.32%	8.70%	0.0616%
844	Women's or girls' coats, capes, jackets, suits, trousers, shorts, shirts, dresses and skirts, underwear, nightwear and similar articles of textile fabrics, knitted or crocheted (other than those of subgroup 845.2)	0.932	0.994	9.68%	8.15%	0.0578%
841	Men's or boys' coats, capes, jackets, suits, blazers, trousers, shorts, shirts, underwear, nightwear and similar articles of textile fabrics, not knitted or crocheted (other than those of subgroup 845.2)	0.895	0.946	7.42%	6.25%	0.0443%

Source: Authors calculations based on UN-COMTRADE

Further, Table 6 illustrates Group A contribute to Sri Lankan exports and to world. The share of contribution to Sri Lanka export earning fluctuated within the range of 83.42 percent to

86.84 percent. There is a declining tendency of world export contribution in group A products. Thus, it is the opportunity that Sri Lanka should pursue to enhance the competitiveness and specialization of exports in those products.

The finding of confidence levels of RSCA and TBI of Group A at 95% confident level shows in Table 7.

Table 6: Group A contribution

Year	Contribution to Sri Lanka Export (percentage)	Contribution to World Export (percentage)
2000	86.84	0.066
2005	83.42	0.0494
2010	84.14	0.0491

Source: Authors' calculations based on UN-COMTRADE

Table 7 : Results of confidence interval analysis – Group A

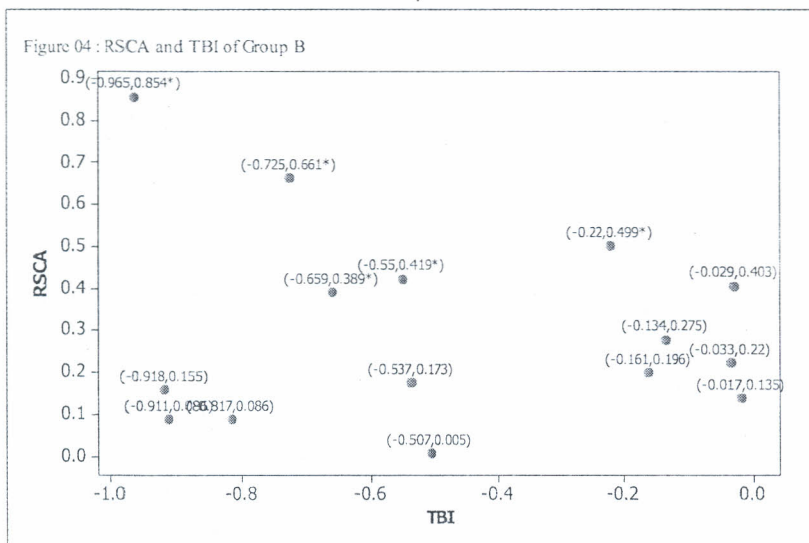
Both RSCA and TBI Significant		
Fish, fresh (live or dead), chilled or frozen	Natural rubber, balata, gutta-percha, guayule, chicle and similar natural gums, in primary forms	Articles of apparel, of textile fabrics, whether or not knitted or crocheted, n.e.s.
Crustaceans, molluscs and aquatic invertebrates,	Crude vegetable materials, n.e.s.	Clothing accessories, of textile fabrics
Fruit and nuts (not including oil nuts), fresh or dried	Fixed vegetable fats and oils, crude, refined or fractionated, other than "soft"	Articles of apparel and clothing accessories of other than textile fabrics; headgear of all materials
Fruit, preserved, and fruit preparations	Articles of rubber, n.e.s.	Ships, boats (including hovercraft) and floating structures
Spices	Wood manufactures, n.e.s.	Men's Cloths
Rubber tyres, interchangeable tyre treads, tyre flaps and inner tubes for wheels of all kinds	Women's or girls' Cloths	Tobacco, unmanufactured; tobacco refuse

Men's or boys' Cloths		
RSCA Significant	TBI Significant	Both RSCA and TBI Insignificant
Meal and flour of wheat and flour of meslin	Pearls and precious or semiprecious stones, unworked or worked	Natural abrasives, n.e.s. (including industrial diamonds)
Tea and maté	Women's or girls' cloths (other than those of subgroup 845.2)	Made-up articles, wholly or chiefly of textile materials, n.e.s.
Tobacco, manufactured		Pottery
Vegetable textile fibers (other than cotton and jute), raw or processed but not spun; waste of these fibers		Electric power machinery
		Printed matter

Source: Compiled data from UN-COMTRADE

Findings of Group B

There are 16 products in the Group B out of 260 products in 2010 (Figure 04). According to Table 08, higher comparative advantage products (top 5) are residual products of the chemical or allied industries, municipal waste; sewage sludge; other wastes, Tullies, lace, embroidery, ribbons, trimmings and other small wares, Lead, Motor cycles (including mopeds) and cycles, motorized and non-motorized; invalid carriages and Feeding stuff for animals (not including unmilled cereals).



Source: Authors' calculation based on UN-COMTRADE

Figure 3: RSCA and TBI of Group B

Table 4: Products include in Group A during year 2000, 2005 and 2010

Product Code	Product Name
34	Fish, fresh (live or dead), chilled or frozen
36	Crustaceans, molluscs and aquatic invertebrates, whether in shell or not, fresh (live or dead), chilled, frozen, dried, salted or in brine; crustaceans, in shell, cooked by steaming or boiling in water, whether or not chilled, frozen, dried, salted or in
57	Fruit and nuts (not including oil nuts), fresh or dried
74	Tea and maté
75	Spices
231	Natural rubber, balata, gutta-percha, guayule, chicle and similar natural gums, in primary forms (including latex) or in plates, sheets or strip
265	Vegetable textile fibers (other than cotton and jute), raw or processed but not spun; waste of these fibers
292	Crude vegetable materials, n.e.s.
625	Rubber tyres, interchangeable tyre treads, tyre flaps and inner tubes for wheels of all kinds
629	Articles of rubber, n.e.s.

658	Made-up articles, wholly or chiefly of textile materials, n.e.s.
666	Pottery
667	Pearls and precious or semiprecious stones, unworked or worked
841	Men's or boys' coats, capes, jackets, suits, blazers, trousers, shorts, shirts, underwear, nightwear and similar articles of textile fabrics, not knitted or crocheted (other than those of subgroup 845.2)
842	Women's or girls' coats, capes, jackets, suits, trousers, shorts, shirts, dresses and skirts, underwear, nightwear and similar articles of textile fabrics, not knitted or crocheted (other than those of subgroup 845.2)
843	Men's or boys' coats, capes, jackets, suits, blazers, trousers, shorts, shirts, underwear, nightwear and similar articles of textile fabrics, knitted or crocheted (other than those of subgroup 845.2)
844	Women's or girls' coats, capes, jackets, suits, trousers, shorts, shirts, dresses and skirts, underwear, nightwear and similar articles of textile fabrics, knitted or crocheted (other than those of subgroup 845.2)
845	Articles of apparel, of textile fabrics, whether or not knitted or crocheted, n.e.s.
846	Clothing accessories, of textile fabrics, whether or not knitted or crocheted (other than those for babies)
848	Articles of apparel and clothing accessories of other than textile fabrics; headgear of all materials

Source: Compiled data from UN-COMTRADE

Feeding stuff for animals (not including unmilled cereals) contribute 0.94 % to Sri Lankan export and 0.021 % to world (out of total feeding stuff for animals (not including unmilled cereals export). However, when considering the RSCA analysis contribution to Sri Lankan exports differ from the above mentioned. Further, Group B contribution to Sri Lankan exports and to the world shows in table 09. The contribution of group B to Sri Lanka's export earning and to world export expands by nearly 47 and 31 percent respectively from 2005 to 2010. The finding of confidence levels of RSCA and TBI of Group B at 95% confident level shows in table 10.

Table8 : Top 5 contributed products in Group B (2010)

Product Code	Product Name	RSCA	TBI	Contribution in Group B	Contribution SL	Contribution World
81	Feeding stuff for animals (not including unmilled cereals)	0.402253	-0.02806	21.58%	0.94%	0.02186%

785	Motor cycles (including mopeds) and cycles, motorized and non-motorized; invalid carriages	0.418775	-0.54946	15.30%	0.67%	0.01549%
98	Edible products and preparations, n.e.s.	0.195869	-0.1606	12.41%	0.54%	0.01257%
651	Textile yarn	0.085223	-0.81619	8.60%	0.38%	0.00871%
656	Tulles, lace, embroidery, ribbons, trimmings and other small wares	0.660781	-0.72473	6.68%	0.29%	0.00677%

Source: Authors' calculations based on UN-COMTRADE

Table 9: Group B contribution

Year	Contribution to Sri Lanka Export (percentage)	Contribution to World Export (percentage)
2000	3.42	0.0026
2005	3.39	0.0020
2010	4.49	0.0026

Source: Authors' calculations based on UN-COMTRADE

Table 10 : Results of confidence interval analysis – Group B

Both RSCA and TBI Significant	RSCA Significant
Fish, dried, salted or in brine; smoked fish	Fuel wood (excluding wood waste) and wood charcoal
Cocoa	Residual products of the chemical or allied industries,
Edible products and preparations, n.e.s.	Tulles, lace, embroidery, ribbons, trimmings and other small wares
Other crude minerals	Lead
Materials of rubber	Motor cycles (including mopeds) and cycles, motorized and non-motorized; invalid carriages
Veneers, plywood, particle board, and other wood, worked, n.e.s.	
Textile yarn	

Knitted or crocheted fabrics	
Special yarns, special textile fabrics and related products	

Source: Compiled data from UN-COMTRADE

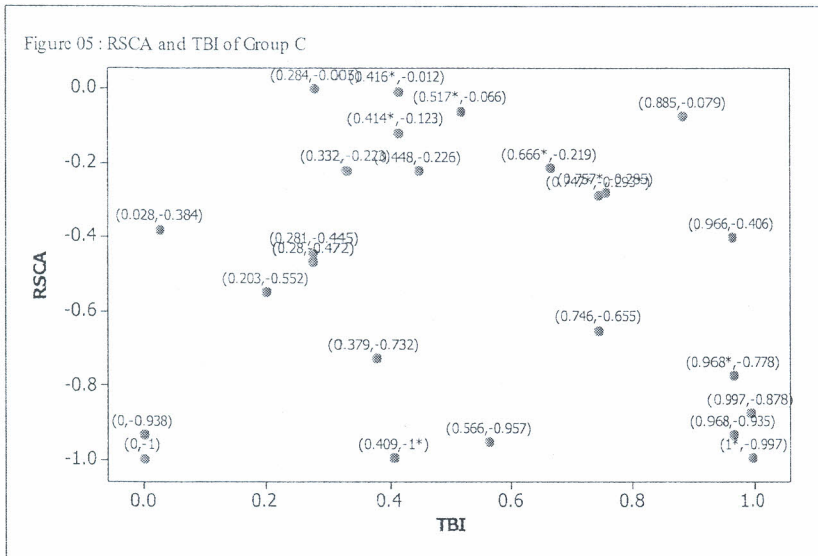
Findings of Group C

Out of 260 products chosen for this study, 24 products are in the Group C in 2010 (figure 05). Based on RSCA index, lowest comparative disadvantage products (top 5) are Crude animal materials, Other cereal meals and flours, Baby carriages, toys, games and sporting goods, Pulp and waste paper, Trailers and semi-trailers; other vehicles, not mechanically-propelled; specially designed and equipped transport containers (Table 11).

Table 11: Top 5 contributed products in Group C (2010)

Product Code	Product Name	RSCA	TBI	Contribution in Group C	Contribution SL	Contribution World	Excluding total exports W
931	Special transactions and commodities not classified according to kind	-0.405	0.965	41.02%	1.59%	0.009%	0.01%
894	Baby carriages, toys, games and sporting goods	-0.066	0.517	13.62%	0.53%	0.002%	0.003%
821	Furniture and parts thereof; bedding, mattresses, mattress supports, cushions and similar stuffed furnishings	-0.471	0.280	8.01%	0.31%	0.001%	0.0020%
897	Jewellery, goldsmiths' and silversmiths' wares, and other articles of precious or semiprecious materials, n.e.s.	-0.285	0.757	7.11%	0.27%	0.001%	0.001%
251	Pulp and waste paper	-0.079	0.884	6.75%	0.26%	0.001%	0.001%

Source: Authors' calculations based on UN-COMTRADE



Source: Authors' calculations based on UN-COMTRADE

Figure 3: RSCA and TBI of Group C

Note: * indicates statistical significance at 5% error level.

Group C includes products which have comparative disadvantage and are net exports. Therefore, RSCA value for all products in the group is negative. This study, therefore, considered TBI value with respect to the RSCA value. Further, Group C contributes 3.31 percent to Sri Lankan exports and 0.0025 percent to the world in 2000. It expands to 6.11 percent to Sri Lankan export and 0.0036 percent to the world in 2005. However, Sri Lankan export and world export contribution declined to 3.89 percent and 0.0022 percent respectively in 2010.

The finding of confidence levels of RSCA and TBI of Group C at 95% confident level shows in table 12. There is a considerable increase in number of products which are comprised in the group B and C. Group B includes the products which have comparative advantage but no export specialization and group C consists with export specialization but comparative disadvantage products. Increasing the number of products in group B and C is not strengthening the competitiveness of exported products in Sri Lanka. Table 13 and 14 illustrate the products which include in group B and C throughout the period of study.

Table 12: Results of confidence interval analysis – Group C

Both RSCA and TBI Significant		
Meat of bovine animals, fresh, chilled or frozen	Wool and other animal hair	Machine tools for working metal, sintered metal carbides or cermets, without removing material
Meat and edible meat offal, salted, in brine, dried or smoked; edible flours and meals of meat or meat offal	Worn clothing and other worn textile articles; rags	Optical instruments and apparatus, n.e.s.
Meat and edible meat offal, prepared or preserved, n.e.s.	Nickel ores and concentrates	Oil-seeds and oleaginous fruits, whole or broken, of a kind used for the extraction of other fixed vegetable oils
Vegetables, roots and tubers, prepared or preserved, n.e.s.	Uranium or thorium ores and concentrates	Natural gas, whether or not liquefied
Oil-seeds and oleaginous fruits of a kind used for the extraction of "soft" fixed vegetable oils (excluding flours and meals)	Crude animal materials, n.e.s.	
RSCA Significant		
Other cereal meals and flours	Ores and concentrates of precious metals; waste, scrap and sweepings of precious metals (other than of gold)	Jewellery, goldsmiths' and silversmiths' wares, and other articles of precious or semiprecious materials, n.e.s.
Wood in chips or particles and wood waste	Trailers and semi-trailers; other vehicles, not mechanically-propelled; specially designed and equipped transport containers	Jute and other textile bastfibers, n.e.s., raw or processed but not spun; tow and waste of these fibers (including yarn waste and garneted stock)
Baby carriages, toys, games and sporting goods		
TBI Significant	Both RSCA and TBI Insignificant	
Barley, unmilled	Ores and concentrates of base metals, n.e.s.	

Source: Compiled data from UN-COMTRADE

Table 13: Products include in Group B during year 2000, 2005 and 2010

Product Code	Product Name
35	Fish, dried, salted or in brine; smoked fish (whether or not cooked before or during the smoking process); flours, meals and pellets of fish, fit for human consumption

651	Textile yarn
655	Knitted or crocheted fabrics (including tubular knit fabrics, n.e.s., pile fabrics and openwork fabrics), n.e.s.
656	Tulles, lace, embroidery, ribbons, trimmings and other small wares

Source: Compiled data from UN-COMTRADE

Table 14: Products include in Group C during year 2000, 2005 and 2010

Product Code	Product Name
11	Meat of bovine animals, fresh, chilled or frozen
47	Other cereal meals and flours
251	Pulp and waste paper
289	Ores and concentrates of precious metals; waste, scrap and sweepings of precious metals (other than of gold)
851	Footwear

Source: Compiled data from UN-COMTRADE

Findings of the Group D

Most of the products i.e. 189 out of 260 products are in the Group D. According to the table 15, lowest comparative disadvantage products (top 5) are Miscellaneous manufactured articles, equipment for distributing electricity, vegetables, fresh, chilled, frozen or simply preserved (including dried leguminous vegetables), roots, tubers and other edible vegetable products, fresh or dried, Rice and miscellaneous chemical products. Group D contributes to Sri Lankan exports and to the world demonstrate in table 16.

Table 15: Top 5 contributed products in Group D (2010)

Product Code	Product Name	RSCA	TBI	Contribution in Group D	Contribution SL	Contribution World	Excluding total exports W
899	Electrical apparatus for switching or protecting electrical circuits	-0.213	-0.098	12.34%	0.92%	0.0007%	0.0007%

773	Miscellaneous chemical products,	-0.063	-	0.149	8.83%	0.66%	0.0005%	0.0005%
54	Equipment for distributing electricity,	-0.024	-	0.214	7.75%	0.58%	0.0004%	0.0004%
42	Miscellaneous manufactured articles,	-0.020	-	0.246	6.47%	0.48%	0.0004%	0.0004%
598	Articles, n.e.s., of plastics	-0.282	-	0.218	5.85%	0.44%	0.0003%	0.0003%

Source: Authors' calculations based on UN-COMTRADE

Table 16: Group D contribution

Year	Contribution to Sri Lanka Export (percentage)	Contribution to World Export (percentage)
2000	6.42	0.0049
2005	7.07	0.0042
2010	7.47	0.0044

Source: Authors' calculations based on UN-COMTRADE

Considering the products in group D, there is a tendency of declining comparative disadvantage and import specialization products from 2000 to 2010. Table 17 shows the products which increased the competitiveness and export specialization (group A) throughout the period of the study. Based on the figures in table 18, Sri Lanka increased the competitiveness in nine products which are included in group D in year 2000. Out of 206 products in group D in year 2000 (table 02), twelve products increased their export specialization (net exporter) in 2010, illustrates in table 19.

Table 17: Products move from Group D to Group A during the period of study

Product Code	Product Name
46	Meal and flour of wheat and flour of meslin
122	Tobacco, manufactured (whether or not containing tobacco substitutes)
277	Natural abrasives, n.e.s. (including industrial diamonds)
793	Ships, boats (including hovercraft) and floating structures
892	Printed matter

Source: Compiled data from UN-COMTRADE

Table 18: Products move from Group D to Group B during the period of study

Product Code	Product Name
72	Cocoa
81	Feeding stuff for animals (not including unmilled cereals)
98	Edible products and preparations, n.e.s.
278	Other crude minerals
422	Fixed vegetable fats and oils, crude, refined or fractionated, other than "soft"
634	Veneers, plywood, particle board, and other wood, worked, n.e.s.
657	Special yarns, special textile fabrics and related products
685	Lead
785	Motor cycles (including mopeds) and cycles, motorized and non-motorized; invalid carriages

Source: Compiled data from UN-COMTRADE

Table 19: Products move from Group D to Group C during the period of study

Product Code	Product Name
16	Meat and edible meat offal, salted, in brine, dried or smoked; edible flours and meals of meat or meat offal
17	Meat and edible meat offal, prepared or preserved, n.e.s.
43	Barley, unmilled
222	Oil-seeds and oleaginous fruits of a kind used for the extraction of "soft" fixed vegetable oils (excluding flours and meals)
246	Wood in chips or particles and wood waste
264	Jute and other textile bastfibers, n.e.s., raw or processed but not spun; tow and waste of these fibers (including yarn waste and garneted stock)
269	Worn clothing and other worn textile articles; rags
291	Crude animal materials, n.e.s.
431	Animal or vegetable fats and oils, processed; waxes of animal or vegetable origin; inedible mixtures or preparations of animal or vegetable fats or oils, n.e.s.
786	Trailers and semi-trailers; other vehicles, not mechanically-propelled; specially designed and

	equipped transport containers
821	Furniture and parts thereof; bedding, mattresses, mattress supports, cushions and similar stuffed furnishings
871	Optical instruments and apparatus, n.e.s.

Source: Compiled data from UN-COMTRADE

The finding of confidence levels of RSCA and TBI of Group D at 95% confident level shows in table 20.

Table 20: Results of confidence interval analysis – Group D

TBI Significant		
Fabrics, woven, of man-made textile materials	Structures and parts of structures, n.e.s., of iron, steel or aluminium	Works of art, collectors' pieces and antiques
Other textile fabrics, woven	Wire products and fencing grills	Glass
Mineral manufactures, n.e.s.	Textile and leather machinery and parts thereof, n.e.s.	Food –Processing machines
	Food-processing machines	
RSCA Significant		
Wheat (including spelt) and meslin, unmilled	Copper ores and concentrates; copper mattes; cement copper	Ingots and other primary forms, of iron or steel; semi-finished products of iron or steel
Maize (not including sweet corn), unmilled	Aluminium ores and concentrates (including alumina)	Rails or railway track construction material, of iron or steel
Cereals, unmilled (other than wheat, rice, barley and maize)	Non-ferrous base metal waste and scrap, n.e.s.	Agricultural machinery (excluding tractors) and parts thereof
Vegetables, fresh, chilled, frozen or simply preserved	Essential oils, perfume and flavour materials	Tractors (other than those of headings 744.14 and 744.15)
Fruit juices (including grape must) and vegetable juices, unfermented and not containing added spirit, whether or not containing added sugar or other sweetening matter	Miscellaneous chemical products, n.e.s.	Mechanical handling equipment and parts thereof, n.e.s.
Iron ore and concentrates	Lime, cement, and fabricated construction materials	

Both RSCA and TBI Insignificant		
Synthetic fibers suitable for spinning	Heating and cooling equipment and parts thereof, n.e.s.	Office and stationery supplies, n.e.s.
Other man-made fibers suitable for spinning; waste of man-made fibers	Non-electrical machinery, tools and mechanical apparatus and parts thereof, n.e.s.	Musical instruments and parts and accessories thereof; records, tapes and other sound or similar recordings
Wire of iron or steel	Arms and ammunition	

Source: Compiled data from UN-COMTRADE

In year 2000, Sri Lanka was not engaging either export or import in three products. Table 21 displays the products which Sri Lanka does not engage with international trade. Sri Lanka starts to engage with trade in Residual products of the chemical (p.c 599) and displays comparative advantage and import specialization (group B) in 2010.

Table 21: Non-Traded products in Sri Lanka

Year	Product Code	Product Name
2000	351	Electric current
	599	Residual products of the chemical or allied industries, n.e.s.; municipal waste; sewage sludge; other wastes
	931	Special transactions and commodities not classified according to kind
2005	351	Electric current
	599	Residual products of the chemical or allied industries, n.e.s.; municipal waste; sewage sludge; other wastes
2010	284	Nickel ores and concentrates; nickel mattes, nickel oxide sinters and other intermediate products of nickel metallurgy
	343	Natural gas, whether or not liquefied

Source: Compiled data from UN-COMTRADE

Discussion and Conclusion

The main purpose of this study is to analyze the export product portfolio in Sri Lanka which based on the principles of comparative advantage and examine whether or not Sri Lanka exports the products which have comparative advantage. This paper attempts to identify

comparative disadvantage products in Sri Lankan export product portfolio. The purpose of such an analysis was to obtain a comprehensive view of the comparative advantage that Sri Lanka enjoys compared with the rest of the world.

Standard International Trade Classification (SITC) version 4 was used to compute RSCA and TBI. As per SITC classification, Tea and maté, Vegetable textile fibers, Spices, Meal and flour of wheat and flour of meslin, Women's or girls' clothes knitted or crocheted are the foremost commodities enjoying a comparative advantage in Sri Lanka.

Results emphasized that Tea and maté provides the highest contribution in to the Sri Lankan export income, but its TBI value is insignificant. It means that even Tea and maté is not a significant foreign income creator but it can compete in the international market.

The RSCA index for the technological items; electric power machinery, ships, boats, and motor cycles are less than unity in case of imports as well as exports throughout the period of the study. The structure of Sri Lankan exports and thereby, its economy even after thirty five years of liberalization is still a long distance away from innovation and technological advancements.

The policy makers of Sri Lanka should be focused on their higher attention for exports in Group "B" and Group "C". Because exports in Group "B" have comparative advantage but they are net importers. It means those industries shouldn't use proper strategies to increase earnings even though they have the competitiveness at the world market. Also exports in Group "C" are foreign income creators but they don't have the competitiveness in the global market. Therefore, the government should reconsider their policies on those industries.

Finally, Group "D" shows comparative disadvantage and net importers of Sri Lanka. According to the findings of the study, 71 % products are included in this category.

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