Relevance of Trade Facilitation in South Asian Economies: Sri Lankan Perspective

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Introduction

The term 'Trade Facilitation' refers to reducing the complexity and cost of the trade transaction process. Such facilitation seeks to ensure that trade-related activities take place in a well-organized and transparent manner, covering the whole trade chain across national borders from exporter to importer.

Chowdhury (2005) empirically analyzed trade reforms and economic integration in South Asia (SA). His results suggest that small economies like Bangladesh and Sri Lanka acquire relatively low gains from trade even though these countries have adopted liberalized trade policies. Otsuki et al., (2012) examined the progress and challenges of SA in trade liberalization and facilitation, quantifying the gains from trade to the region based on the gravity model approach for 101 countries. India is the only country in SA with a large economy compared to other countries in the region. Therefore it is not appropriate to apply/adopt the Indian experience and policies in economies like Sri Lanka, Nepal, Bhutan in their trade facilitation process. Empirical studies on trade facilitation process are not available for small economies. This study focuses the trade facilitation process in SA with reference to Sri Lanka. Findings of this study will help to refine related policies in trade facilitation in Sri Lanka.

Objectives

The major objective of this study is examine trade facilitation process of Sri Lanka with major trading partners with special focues of SA economies and identify the trade facilitation challenges faced by SA countries in intra regional tarde.

Methodology

This study adopted Logistic Performance Index (LPI) as in Marti et al., (2014) used to measure trade facilitation. This study also uses the Gravity model which looks at bilateral trade, where trade flows depend negatively on the distance between countries and positively on the income of both countries. The study sample consists of 35 major trading partners of Sri Lanka in 2012. This study obtains required data from the World Bank and the Central Bank of Sri Lanka. The basic gravity equation for trade used in this study is given by the following. The model uses trade value as a dependent variable and Logistic Performance Index (LPI), exchange rate and distance to frontier as independent variables.

$$Trade_{ijt} = D_{ijt}^{\beta 1}(GDP_i.GDP_j)_t^{\beta 2} ER_{ijt}^{\beta 3}(LPI_i.LPI_j)_t^{\beta 4}(Frontier_{jt})^{\beta 5} e^{\varepsilon_{ijt}}$$

This equation can be converted to *log-linear* form as:

$$Log\ (Trade_{ijt}) = Log\beta_0 + \beta_1 Log\ (D_{ijt}) + \beta_2 Log(GDP_i.GDP_j)_t + \beta_3$$
$$Log\ (ER_{ijt}) + \beta_4 Log(LPI_i.LPI_j)_t + \beta_5(Frontier_{jt}) + \varepsilon_{ijt}$$

where, $Trade_{ijt}$ is the total amount of exports and imports between countries *i* and *j* in the time period *t*. D_{ijt} is the distance between the two countries. GDP_i is the GDP of country *i*, and GDP_j is the GDP of country *j* at time period *t*. ER_{ijt} is the exchange rate between two countries at the time period *t*. LPI_i is the Logistic Performance Index

for country i and LPI_j is the Logistic Performance Index for country j at time period t. *Frontier* is a dummy variable to figure out whether country j exceeds the average frontier value[2].

Results and Discussion

The results of the Gravity model analysis applied to Sri Lanka's major trading partners are shown in Table 1.

Table 1: Results of the Gravity Model Estimation

Dependent Variable: *Trade*$_{ijt}$;
Total observations: 35

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.553971	2.279816	-1.12	0.272
$Log\,(D_{ijt})$	-1.178291	.2422202	-4.86	0.000
$Log(GDP_i.GDP_j)_t$	.4974394	.1126956	4.41	0.000
$Log\,(ER_{ijt})$	-.0278826	.056921	-0.49	0.628
$Log(LPI_i.LPI_j)_t$	3.07203	1.284747	2.39	0.024
Frontier	-.268247	.3724512	-0.72	0.477

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R-squared	0.7180	F-statistic		14.77
Adj. R-squ.	0.6694	Probability		0.000

These results demonstrate the validity of the model's theoretical basis by its acceptance of the relationships of trade value with distance (negative) and GDP (positive) at the 99% confidence level. The regression results demonstrate an insignificant relationship between exchange rates and trade values when the global average of distance to

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[2] Frontier value as defined by the World Bank

frontier is exceeded. However, the LPI was significant at the 95% confidence level with a positive coefficient.

ER demonstrates an insignificant impact on trade values, because of inelastic demand for exports from small open economies. Distance to frontier become insignificant due to lower values of giant trading partners like China and India. Significant and the largest coefficient of LPI demonstrate that trade facilitation seems to increase the trade value to a higher degree for Sri Lanka. This result can be used to identify the ground reality of external trade for in small open economies.

Figure 1: LPI of SA Countries in 2014
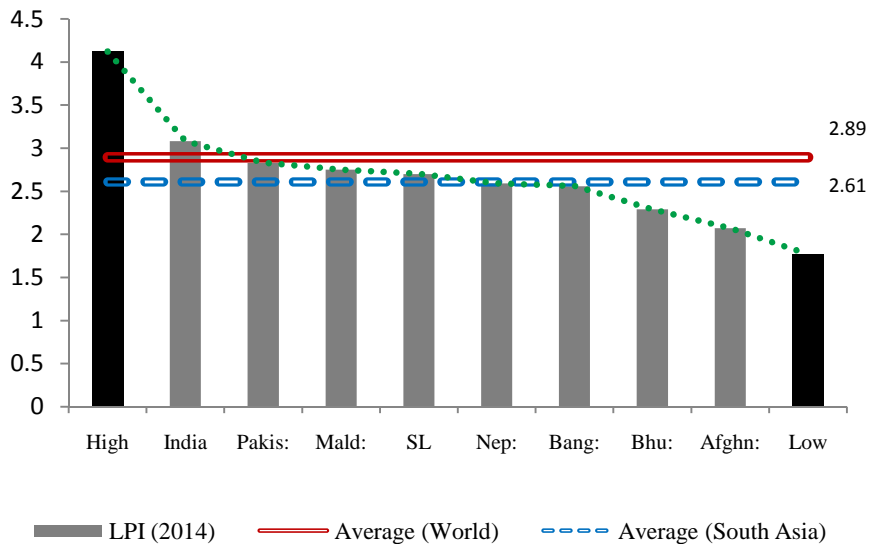
Source: The World Bank, 2014.

According to the figure 1, all economies in SA other than India lay below the global average and with four economies i.e Bhutan, Nepal, Bangladesh and Afganistan are below the SA regional average. SA regional average for LPI is 0.28 points which is behind the global average. On the other hand, the gap between the country with the

highest LPI in the world and the region is greater than the gap between the lowest in the world and the SA region. This evidence reflects the exact position of SA countries trade facilitation.

Conclusions and Policy Recommendations

Findings of this analysis identify, LPI as a good indicator to determine trade facilitation. It shows that except India, other SA economies are far below in trade facilitation performance. They have failed to be major trading partners within their own region. Pakistan and Maldives are the only major trading partners with Sri Lanka's out of 35 countries and they are also ranked 19th and 33rd respectively. The low level of trade facilitation between those countries may be the reason for this kind of result. On the other hand, countries like Singapore and Hong Kong with highest values of LPI have a labor based economy in line with industrial policies.

Insignificance of the exchange rate variable indicates that economies should emphasis trade facilitation polices than exchange rate polices to increase gains from trade. Therefore, governments should be concerned with the major components of trade facilitation such as fast clearance, efficient communication in trade etc. to be more effective. Future studies can be focused on major components in trade facilitation.

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