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An Empirical Analysis of Export Market Competitiveness of Spice Sector in Sri Lanka**Gunaratne M.D.N.^{1*}, Joseph R.²**¹*Institute of Applied Statistics Sri Lanka, Colombo, Sri Lanka*²*University of Vocational Technology, Ratmalana, Sri Lanka***mdng2012@gmail.com***Abstract**

Ceylon spices had been popular in the world as far as the 15th century. The product range of the spice sector comprise of cinnamon, pepper, cloves, cardamom, nutmeg, mace and vanilla. The spice crop production continues to be largely confined to mix home gardens agroforestry systems in Sri Lanka particularly for pepper, cloves, nutmeg, and cardamom. But 70% of the cinnamon is grown as a pure crop in small holdings. Sri Lanka is a lower middle-income country with a small economy of around US\$ 80.7 billion (nominal) gross domestic production (GDP) in 2020 and the value of spice exports was equivalent to 3.3 % of total merchandise exports. The trend of both spice sector export value and the contribution to the total exports are increasing over time. The objective of this study is to empirically analyze the market competitiveness of spice sector of Sri Lanka in international trade. Export statistics of spices over the period between 2001 and 2020 was used for the analysis of export performances in terms in terms of Country Share, Revealed Symmetric Comparative Advantage (RSCA) and Herfindahl Index (HHI). According to the export statistics, cinnamon (*Cinnamomum zelanicum*) exports show a steady increasing trend over time. Both pepper and cardamom show a zigzag variation in exports. The country's export shares in the world export (in value term) are 21% in cinnamon, 1% pepper, 4% cloves, 1% in nutmeg, mace and cardamoms, 0.02% vanilla, and ginger and others 0.2%. The essential oil (mainly extracted from spices) contributes 0.86%. However, Sri Lanka is gradually losing its ground in spice sector except in essential oil. The RSCA was calculated, and Ceylon cinnamon shows the highest value of 0.995. The RSCA of clove, pepper, nutmeg- mace and cardamom are 0.979, 0.928 and 0.923 respectively. According to RSCA, theses spices are the foremost commodities enjoying a comparative advantage in Sri Lanka with RSCA value greater than 0. The HHI values of spices have reached the level of 0.25 indicating decreasing competition and the market is getting high concentration by countries like China, Vietnam, and India. This study shows although there is an increasing trend of the Ceylon Spice exports over time, but it is not enough to meet the rapid increase of demand of spice exports in the world market and the market is getting more concentrated by other players over time in international trade.

Keywords: Spices, Exports, Competitiveness, Market concentration