

## Determinants of Indian Agricultural Exports in the Post Reform Period with specific reference to Tea, Natural Rubber and Coffee (Green)<sup>1</sup>

SHABNAM KUMARI\*  
DEEPTI KAKAR\*\*

---

---

### Abstract

This paper derives the factors determining the Indian agricultural exports and empirically ascertain the magnitude of effects of the determinants using annual time series data for the period of 1991 to 2019 (Post economic reforms of 1991). The present study employs Johansen Co-integration, VECM, and VEC Granger Causality/Wald test functions on the agricultural exports of Tea, Natural rubber & Coffee (green) to measure the co-integration and short-run & long-run causality between the Indian agricultural exports and its determinants; agriculture input (land use), producer price, real effective exchange rate, consumer price, and real interest rates. Empirical findings exhibit the presence of a long-term association between the exports of Tea, Natural rubber, coffee, and their determinants. VECM results prove the existence of long-run causality in Tea exports, however, there is bi-directional causality has been seen in exports of the natural rubber in the short run. The results are of immense use of government institutions and policymakers in designing interventions so as to promote agricultural exports from India.

---

---

### I. Introduction

EXPORTS ARE CONSIDERED as an engine of economic growth for a nation. Being an agrarian economy, agricultural exports have historically played a pivotal role in the growth journey of the Indian economy. With the onset of economic reforms during the late 20th century, agriculture exports received a policy level encouragement and in the last few decades, India has emerged as a major agricultural exporter in world trade and embellished as the seventh-largest agricultural exporter of the world in 2013, surpassing Australia (USDA, 2014). Being an essential part of the economy, the Indian agriculture sector contributes about 17.32% (2018) in the GDP of the nation and provides employment to about 60 % of the population (Kumar, 2018).

---

1 Presented at FI International Research Conference (August 8th, 2020)

\* Doctoral (PhD) Research Scholar, Jagan Institute of Management Studies, 3 Near Rithala Metro Station, Rohini Sector 5, Institutional Area, Delhi 110085, INDIA

\*\* Professor, Jagan Institute of Management Studies, 3 Near Rithala Metro Station, Rohini Sector 5, Institutional Area, Delhi 110085, INDIA

products such as cotton, rice, sugar, pulses, fruits, and vegetables, etc. Moreover, a similar study can be conducted in various developed and developing economies such as the US, China, Pakistan, Indonesia, and Nigeria. Also, pre and post-reform period analysis can be done to ascertain India's export performance in terms of agricultural commodities.

### References

- Abolagba, E.O., N.C. Onyekwere, B.N. Agbonkolor and H.Y. Umar, (2010), "Determinants of Agricultural Exports", *Journal of Human Ecology*, Vol. 29, No. 3, pp. 181-184
- Adhikari, Anup, M.K. Sekhon and Manjeet Nanda, (2016), "Export of Rice from India: Performance and Determinants", *Agricultural Economics Research Review*, Vol. 29, pp. 135
- Alkhteeb, T.T. and Z.A. Sultan, (2015), "Determinants of India's Agricultural Export", *European Journal of Business and Management*, Vol. 7, No. 4, , pp. 53-62
- Amoro, Grafoute and Shen, Yao, (2012), "The Determinants of Agricultural Export: Cocoa and Rubber in Cote d'Ivoire", *International Journal of Economics and Finance*, Vol. 5, No. 1, pp. 228-233
- Bilal, M. and S.B. Rizvi, (2018), "Determinants of Rice Exports: An Empirical Analysis of Pakistan", *Journal of Asian Development Studies*, Vol. 7, No. 2, pp. 61-72
- Bonansi, D., B. Odilon Kounagbé Lokonon and J. Appah, (2014), "Determinants of Agricultural Export Trade: Case of Fresh Pineapple Exports from Ghana", *British Journal of Economics, Management and Trade*, Vol. 4, No. 11, pp. 1736-1754
- Bonansi, David, (2013), "Competitiveness and determinants of cocoa exports from Ghana", *International Journal of Agricultural Policy and Research*. Vol. 1, pp. 236-254
- Bonansi, D., (2014), "Determinants of Agricultural Export Trade: A Co-Integration Analysis for Cotton Lint Exports from Chad", *Global Journal of Science Frontier Research: D Agriculture and Veterinary*, Vol. 14, No. 4
- Chand, P., (2014), "Growth, instability and determinants in India's agricultural commodity export: A policy period analysis", *FOCUS: Journal of International Business*, Vol. 1, No. 1, pp. 133-161
- Chand, R., (2004), "Impact of Trade Liberalization and related Reforms on India's Agricultural Sector, Rural Food Security, Income and Poverty", *Institute of Economic Growth*, Delhi University, Delhi, India
- Daulika, P., K. Peng, and N. Hanani, (2020), "Analysis on export competitiveness and factors affecting of natural rubber export price in Indonesia", *Agricultural Social Economic Journal*, Vol. 20, No. 1, pp. 39-44
- David, B., (2013), "Competitiveness and determinants of cocoa exports from Ghana", *International Journal of Agricultural Policy and Research*, Vol. 1, No. 9, pp. 236-254
- ET Bureau, (2017), "Natural rubber exports from India reach the highest in last four years", *The Economic Times*, April 17th, 2017
- Gbentkom, Daniel and Khan, Sunday, (2002), "Determinants of Agricultural Exports: The Case of Cameroon", *African Economic Research Consortium*, Vol. 120, ISBN 9966-944-87-7, Geneva

- IBEF, (2016), *"The best of India: An introduction to the choicest of Indian products"*, Ministry of Commerce and Industry, Government of India, pp. 57-59
- India Brand Equity Foundation, (2020), *"Agricultural and Food Industry and Exports"*, Industry Research Reports, IBEF Knowledge Center, Delhi, India
- Johansen, S., and K. Juselius, (1990), "Maximum likelihood estimation and inference on cointegration with applications to demand for money", *Oxford Bulletin of Economics and Statistics*, Vol. 52, No. 2, pp. 169-210
- Kannan, M.E., (2013), "The Determinants of Production and Export of Natural Rubber in India", *Shanlax International Journal of Economics*. Vol. 1, No. 5, pp. 41-45.
- Kingu, J., (2014), "Determinants of Tanzanian agricultural export: A case of cotton lint", *Developing Country Studies*, Vol. 4, No. 1, pp. 91-104
- Kumar, R., (2018), *"Indian agricultural: Growth, Generation, Policy & Problem"*, Ramesh Kumar P & Company, pp. 2-3
- Majeed, Muhammad and Eatnaz Ahmad, (2006), "Determinants of Exports in Developing Countries", *The Pakistan Development Review*, Vol. 45, No. 4, pp. 1265-1276
- Narayan, S., and P. Bhattacharya, (2019), "Relative export competitiveness of agricultural commodities and its determinants: Some evidence from India", *World Development*, Vol. 117, pp. 29-47
- Park, H., (2019), "An analysis of determinants of agricultural product export using export functions", *Korea International Trade Research Institute*, Vol. 15, No. 1, pp. 525-539
- Rangarajan, C., and R. Kannan, (2017), "Determinants of India's Exports", *Journal of Quantitative Economics*, Vol. 15, No. 3, pp. 629-646
- Rao Muhammad Atif, Liu Haiyun and Haider Mahmood, (2017), "Pakistan's agricultural exports, determinants and its potential: an application of stochastic frontier gravity model", *The Journal of International Trade & Economic Development*, Vol. 26, No. 3, pp. 257-276
- Sally, M., (2019), "APEDA eyes US\$ 60 billion agriculture exports with support of new policy", *The Economic Times*, November 9<sup>th</sup>, 2019
- Thomas, V., and J. Nash, (1991), "Reform of Trade Policy: Recent Evidence from Theory and Practice", *The World Bank Research Observer*, Vol. 6, No. 2, pp. 219-240
- Udah S.C., I.N. Nwachukwu, A.C. Nwosu, J.A. Mbanasor, S.B. Akpan "Determinants of Agricultural Export Growth in Nigerian", (2015), *International Journal of Agriculture, Forestry and Fisheries*, Vol. 3, No. 3, pp. 105-109
- United States Department of Agriculture, (2014), *"India's Agricultural Exports Climb to Record High"*, International Agricultural Trade Reports, USDA Foreign Agricultural Services