ANALYZING THE IMPACT OF DOLLARIZATION AND DE-DOLLARIZATION ON FOREIGN AND IMPORT USING MACHINE LEARNING

Dissertation submitted to

KONGUNADU ARTS AND SCIENCE COLLEGE (AUTONOMOUS)

affiliated to the Bharathiar University

in partial fulfillment of the requirement for the award of the degree of

MASTER OF SCIENCE IN MATHEMATICS

submitted by

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(222MA004)

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I, Ms. **V. MANIPRIYA** hereby declare that the dissertation entitled **"ANALYZING THE IMPACT OF DOLLARIZATION AND DE-DOLLARIZATION ON FOREIGN AND IMPORT USING MACHINE LEARNING"**, submitted to the **KONGUNADU ARTS AND SCIENCE COLLEGE (Autonomous)**, affiliated to the Bharathiar University in partial fulfillment of the requirements for the award of the Degree of **Master of Science in Mathematics**, is a record of the original work done by me during the period 2023-2024 under the guidance of **Dr. N. MOHANAPRIYA M.Sc., Ph.D.,**, Assistant Professor, Department of Mathematics (Aided), Kongunadu Arts and Science College(Autonomous), Coimbatore and the dissertation has not formed on the basis for award of any Degree/ Diploma/ Associate ship/ Fellowship or other similar title to any candidate of any University.

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ABSTRACT

In this work, we investigate the complex relationship between dollarization and Indian international exports and imports over 07 years (2017- 2024). It delves into the US dollar's dominant impact on Indian export and import performance. It analyzes the effectiveness of the Indian government's recent de-dollarization initiatives to reduce dependence on the USD and foster alternative trade mechanisms. The study draws upon country-wise export trade data to paint a comprehensive picture of Indian export and import flows across diverse market destinations. To extract deeper insights from this intricate data, the paper leverages the power of graph machine-learning models implemented within the MATLAB environment. This approach allows for analyzing the interdependencies and hidden patterns within the export data, providing a more nuanced understanding of how dollarization and de-dollarization efforts influence Indian export performance.