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# Stability Analysis of Green Coffee Export Markets of Ethiopia: Markov-Chain Analysis

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**Abstract :** Coffee performs a pivotal role in Ethiopia's GDP, revenue, employment, domestic demand, and export earnings. Ethiopia's coffee production and exports show high variability in the amount of production and export earnings. Despite being the continent's fifth-largest coffee producer, Ethiopia has not developed its ability to shine as a major exporter in the globe's green coffee exports. Ethiopian coffee exports were not stable and had high volume and earnings fluctuations. The main aim of this study was to analyze the dynamics of the export of coffee variation to different importing nations using a first-order Markov Chain model. 14 years of time-series data has been used to examine the direction and structural change in the export of coffee. A compound annual growth rate (CAGR) was used to determine the annual growth rate in the coffee export quantity, value, and per-unit price over the study period. The major export markets for Ethiopian coffee were Germany, Japan, and the USA, which were more stable, while countries such as France, Italy, Belgium, and Saudi Arabia were less stable and had low retention rates for Ethiopian coffee. The study, therefore, recommends that Ethiopia should again revitalize its market to France, Italy, Belgium, and Saudi Arabia, as these countries are the major coffee-consuming countries in the world to boost its export stake to the global coffee markets in the future. In order to further enhance export stability, the Ethiopian Government and other stakeholders in the coffee sector should have to work on reducing the volatility of coffee output and exports in order to improve production and quality efficiency, so that stabilize markets as well as to make the product attractive and price competitive in the importing countries.

**Keywords :** coffee, CAGR, Markov chain, direction of trade, Ethiopia
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