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Impact of Natural Rubber Prices Volatility
on Tyre Industry: Study Based on Bicycle
Tyre Industry in Sri Lanka

A research

By

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Abstract

From the beginning of industrial revolution, natural rubber has made a significant impact on the world economy, and as a result rubber plantation industry has played a vital role. High natural rubber price volatility may be a result of international trade policies, natural disasters and political changes.

Major component of tyre continent natural rubber, but it could be substituted with general purpose synthetic rubber or could be blended with ideal ratio.

On this study the key objective is to ascertain the level of impact of the volatility of natural rubber price on bicycle tyre cost of production and to find ways of minimizing the impact of natural rubber cost and specific objective as ascertain the level of impact of price volatility of general purpose synthetic rubber on cost of production on bicycle tyre manufacture and study to what extent synthetic rubber may substitute for natural rubber.

The secondary data of past ten years of natural rubber prices was obtained from CRTA and synthetic rubber price and relevant manufacturing details from the reputed manufacturers.

Since secondary data are highly volatile, it was selected the forecasting technique as "Auto Regressive Integrated Moving Average" and fixed the ideal model. The forecasted price of natural rubber and synthetic rubber for the period of 3 months are to be analyzed. If the natural rubber price is greater than synthetic rubber, it was blended ideal ratio of natural rubber and synthetic rubber base on other constrain else find a solution through Holistic Approach.

It was found that natural rubber (RSS111) price is greater than synthetic rubber (SBR 1502) by Rs 103.70 /kg in three months period. The ideal blending ratio of natural rubber and synthetic rubber was 60:40. The cost of production on bicycle tyre could be minimized by 6%. Recommend to replace synthetic rubber as much as possible in this particular period. Subsequently, impact of high price volatility of natural rubber could be mitigated.