Predicting Retail Sales of XYZ Company - In Uncertain Economic Conditions after 2020 in Sri Lanka

By

Umanga Jayaweera

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Supervised By

Dr. Alroy Mascrenghe

Robert Gordon University, UK
Informatics Institute of Technology, Sri Lanka

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Abstract

Consumer durable product companies play a significant role in the economy of a country by generating employment, driving innovation, supporting other industries, contributing to exports, and generating revenue for the government. After the 2020 economic instability in Sri Lanka, businesses faced a myriad of challenges as they grappled with the aftermath of the pandemic and its impact on the country's economy. These challenges ranged from financial struggles to operational hurdles and uncertainties in the business environment. From reduced consumer demand and supply chain disruptions to financial strain and uncertainty in the business environment, companies had to navigate a complex landscape to survive and thrive. The challenges also highlighted the importance of adaptability, innovation, and financial resilience for businesses seeking to overcome obstacles and emerge stronger in the face of economic uncertainties.

In these economic conditions, given the rising competitiveness in the consumer durables retail sector, predicting sales has become essential. The profitability of the business is affected both directly and indirectly, therefore its significance has grown within this time period also. Overstocking has consequences, including rising inventory holding costs, occurrence of promotional expenses to clear out the surplus stock, etc., whereas managing the proper amount of inventory would lower inventory holding costs. The characteristics affecting sales were employed in this study to forecast sales using a variety of machine learning algorithems. K-Nearest Neighbor (KNN), Artificial Neural Network (ANN), Decision Tree, Random Forest and Support Vector Machine are the methodologies. This investigation focused on the following two product categories: Fashion and Television.

Fashion and Television Categories show different sales patterns within these uncertain economic conditions. From 2020 Television Sales will decrease but Fashion Sales are increasing twice than previous year. Finding the factors affecting these sales is essential for the growth of these kinds of companies.