

Study of Sales Forecasting Accuracy using ARIMA Model

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CITATION: Mathew, Sunny and Krishnan, S. Ram (2020), "Study of Sales Forecasting Accuracy using Arima Model", *MERC Global's International Journal of Management*, Vol. 8, Issue 2, pp. 40-46.

ARTICLE HISTORY: Submitted: November 29, 2019, Revision received: December 29, 2019, Accepted: January 29, 2020

ARTICLE TYPE: Research paper

ABSTRACT

Forecasting is the program of action that entails an objective study of the past, present and future, to best estimate what that future holds in the way of sales for any given product or firm. One of the earliest recorded attempts at quantitative forecasting was that of John H. Patterson for the National Cash Register Company in 1887. Forecasting models have been widely investigated by researchers and practitioners. Here to understand the accuracy of forecasting, a study was conducted at Tata Global Beverages Limited (TGBL). The sample size for the study consists of the sales for the tea brand of TGBL during the last five years (April 2013 – March 2018). Holt Linear Trend, Holt Winter Model and Auto-Regressive Integrated Moving Average (ARIMA) model were used for forecasting the 2019 year sales data. Mean Absolute Deviation (MAD), Mean Squared Error (MSE), Root Mean Squared Error (RMSE) and Mean Absolute Percentage Error (MAPE) were used for finding accuracy and bar graphs are used for interpreting the results. The output of the study points out the variation between the forecasted sales and actual sales resulting in finding out the accuracy of a different model.

KEYWORDS: ARIMA, Forecasting, Sales, Forecasting models, Forecasting accuracy.

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