

TIME SERIES ANALYSIS OF MONTHLY IMPORTED VEHICLES AND FORECASTING IN SRI LANKA

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Abstract

Food, houses, education, clothes, medicine, transportation are the essentials things that are used by the human beings. In the modern world transport are also plays an important role in human lives. As a result of the open economy large numbers of goods that do not produced in the country are imported while excess productions are export. As many people use imported vehicles for their private transports, business activities, there are a large number of vehicles imported to Sri Lanka and consumption of imported vehicles has been increased every year (dayasily, L., 2013). This study mainly focused to identify the pattern of imported vehicles and forecast its future trend in Sri Lanka. Further the study attempt to identify the variance of imported vehicles monthly wise. The survey is carried out mainly by utilizing secondary data which is covering the period of 2008 January to 2012 December from custom of Sri Lanka and motor vehicle registration department. Time series data analysis techniques, especially Winters' method, MAPE, MAD, and MSD are used as statistical methods. Imported vehicles had seasonal patterns with heavy fluctuation over the period. Registration of the vehicles has reduced in February, April and December in every year. Both imported and registered motor cars and three-wheelers have been increased for the forecasted periods.

Keywords: *Imported vehicles, Time series data analysis, Fluctuation, Forecasting*

1. INTRODUCTION

1.1 Background of The Study

People are living in the world; need to essentials things for their perfect life such as food, houses, education, clothes, medicine etc. In the modern world transport is one of the important things to achieve their basic needs. Transport can be divided into two categories as public and private. Public transport is provided as the government

services of the country, to fulfill the service of people's transportation. That can be concerned as one of the facilities to be provided by the government of the country. Privet transport is the person bought vehicles according to them occupations and their essential needs of the transportation. A person spends a lot of money from their income in order to obtain convenience transportation.

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