Product Backorder

A synopsis of the project work being carried out at

Robert Bosch Engineering and Business Solutions Private Limited(RBEI), Bangalore

Department of Computer Applications

Manipal Institute of Technology

Manipal University, Manipal

in partial fulfillment of the requirements for the award of degree of

Master of Computer Applications

submitted by

Navneet Kumar

Reg. No: 160970058

under the guidance of

Mr. Tojo Thomas
Assistant Professor - Senior Scale
Department of Computer Applications
M.I.T., Manipal - 576 104

Mr. Yuvaraj vellor chandrasekaran
Software Engineer
Cyber Park, Electronic City, Phase 1
Bengaluru, Karnataka 560100

January 2018 to June 2018

MANIPAL INSTITUTE OF TECHNOLOGY
MANIPAL
A Constituent Institution of Manipal University

Abstract

Product backorder is situation when customer order that had not been fulfill. A backorder generally indicates that customer demand for a product or service exceeds a company's capacity to supply it. Total backorders, also known as backlog. Product backorders is a common supply chain problem. Eliminating the problem that help company maintaining its goodwill and customer satisfaction.

Introduction

Current system do not have any analysis for product back order, currently transactions are stored but the loss bearing by the company due to back order and risk associated with the high back order product is not known.

Accurately predict future backorder risk using predictive analytics and machine learning and then to identify the optimal strategy for inventorying products with high backorder risk products. A predictive analytics program can identify which products are most likely to experience backorders giving the organization information and time to adjust for future. The predictive analytics approach reduce the loss bearing by the company in future with the products having high backorder risk.

Objectives

- Exploring and Pre-Processing data.
- Visualizing data in different graphical forms.
- Creating model using different machine learning techniques.
- Predicting back order risk based on model with high accuracy.

Modules

Data Analysis: Understanding and preprocessing the data from source.

Data Modeling: Creating model from different machine learning algorithms.

Data Visualization: Representation of data from different visualization technique.

Data Prediction: Predicting the feature using data model.

Technical Details

Hardware requirements

- Operating system: - Windows 7 Professional (64 bits)
- RAM: 8 GB
- Processor: Intel Core i5-3220M CPU @2.60 GHz

Software requirements

- R (3.4.3)
- R Studio (x64)
- Azure ML Studio
- SQL Server (2008 R2)
- MS Excel 2013