LITERATURE SURVEY ON RETAIL STORE STOCK INVENTORY ANALYTICS

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[1]ABC Classification in Spare Parts for Inventory Management using Ensemble Techniques by Wanthanee Prachuabsupakij. The results of this study give insight into techniques for accurately classifying ABC categorization for inventory management, comparing the precision, recall, f-measure and accuracy of five ensemble algorithms that can be deployed to the inventory process. The paper was published on 2019 IEEE

[2]A Proficient Process for Systematic Inventory Management by Rahil Sheth , Mukund Vora , Rohit Sharma , Mohit Thaker , Prasenjit Bhavathankar. The system provides a method that will use the concept of data analysis to give information about the most selling, profitable and dull stocks. The paper was published at the 2020 International Conference for Emerging Technology (INCET) Belgaum, India. Jun 5-7, 2020

[3]Methods for Classification of Items for Inventory Management by Aman Kumar Saksena, Reshu Agarwal. The research was done under purchase dependency and ABC classification was used for better inventory management and also a method was proposed to calculate optimal ordering policy. The paper was published at the 2021 International Conference on Computer Communication and Informatics (ICCCI -2021), Jan. 27 – 29, 2021, Coimbatore, INDIA.

[4]Inventory management for retail companies: A literature review and current trends.The review was done by Cinthya Vanessa Munoz Macas,Jorge Andrés Espinoza Aguirre,Rodrigo Arcentales-Carrion,Mario Pena. This article aims to analyze and present an extensive literature concerning inventory management, containing multiple definitions and fundamental concepts for the retail sector.The paper was published on 7th june of 2021 in IEEE.

[5]A Profit Function-Maximizing Inventory Backorder Prediction System Using Big Data Analytics. The review was done by Petr Hajek and Mohammad Zoynul Abedin. In this paper a machine learning model equipped with an undersampling procedure to maximize the expected profit of backorder decisions is developed. This is achieved by integrating the proposed profit-based measure into the prediction model and optimizing the decision threshold to identify the optimal backorder strategy. The paper was published on 07-09 April 2022 in IEEE.

[6]Case Study on an Android App for Inventory Management System with Sales Prediction for Local Shopkeepers in India. The study was done by Tejal Tandel, Sayali Wagal, Nisha Singh, Rujata Chaudhari and Vishal Badgujar. They proposed that a very cost effective and accessible

solution for this problem is a mobile application that provides all the features of a point-of-sale system as well as gives future sales insights. The paper was published in 2020.

SUMMARIZATION

S.NO	PAPER NAME	METHODOLOGIES	ADVANTAGES	DISADVANTAGES
1	ABC Classification in Spare Parts for Inventory Management using Ensemble Techniques	The system provides a method that will use the concept of data analysis to give information about the most selling, profitable and dull stocks The method used by the system 1.Data Storage Architecture 2. Market Basket Analysis 3.Regression Modelling	1.Optimization of inventory managers functioning 2.Store and update details of inventory 3.Generate sales report daily,weekly and monthly 4.Uses visualization charts 5.The manual labor was significantly decreased and automation was done to an extent where the time consumption for each process reduced by a significant amount	1.Regression models cannot work properly if the input data has errors (that is poor quality data 2.Computation increases exponentially as the problem or items size grows in market basket analysis

2	A Proficient Process for Systematic Inventory Management	The system provides a method that will use the concept of data analysis to give information about the most selling, profitable and dull stocks The method used by the system 1.Data Storage Architecture 2. Market Basket Analysis 3.Regression Modelling	1.Optimization of inventory managers functioning 2.Store and update details of inventory 3.Generate sales report daily,weekly and monthly 4.The manual labor was significantly decreased and automation was done to an extent where the time consumption for each process reduced by a significant amount	1.Regression models cannot work properly if the input data has errors (that is poor quality data 2.Computation increases exponentially as the problem or items size grows in market basket analysis

3	Methods for Classification of Items for Inventory Management	Association rules are used for finding associations among multi- items by mining sale transaction data. Inventory for getting better profits and to minimize inventory cost replenishment policy can be created using association rules.	1. Finding the most profitable selection of products.	1. Characteristics of inventory data are not involved, such as price, quantity, and time series.
4	Inventory management for retail companies: A literature review and current trends.	1.choosing research questions, 2.defining bibliographic or article databases 3.selecting search terms 4.applying practical screening criteria, 5. applying methodological screening criteria 6. doing the review, and 7.synthesizing the results	1. A systematic literature review was carried out to determine the main trends and indicators of inventory management in Small and Medium-sized Enterprises.Hence the accurate results are obtained	1.Gives only theoretical conclusion 2.This research only covers five years, between 2015 and 2019, focusing specifically on the retail sector
5	A Profit Function-Maximizing Inventory Backorder Prediction System Using Big Data Analytics.	A machine learning model is developed using undersampling procedures to maximize the expected profit of backorder decisions.	1.The proposed model is computationally effective and robust to variation in both warehousing/inventory cost and sales margin. 2.The model predicts both major (non-backorder items) and minor (backorder items) classes in a benchmark dataset.	1.A huge volume of spatiotemporal data generated by the IoT-based system represents another significant challenge posed upon machine learning models.

6	Case Study on an Android App for Inventory Management System with Sales Prediction for Local Shopkeepers in India	The sales prediction and analysis is achieved by employing data mining algorithms like regression analysis on the customer data collected as well as the temporal data fed in by the shopkeepers.	1. To have a mobile application that not only assists with inventory and invoice operations but also helps with sales analysis. 2.With time, the accuracy of the data mining model will improve by 96%	1.The developed system is platform dependent. 2.Regression analysis may result in uncertainty .