RETAIL STORE STOCK INVENTORY ANALYTICS
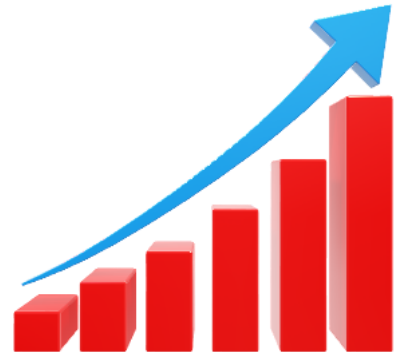
LITERATURE SURVEY

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OBJECTIVES

》》

Retail inventory management is the process of ensuring you carry products that shoppers want,with neither too little nor too much on hand

》》 By managing inventory retailers meet customers demand without running out of stock or carrying excess supply 》》 inventory management is vital for retailers because the practice helps them to increase profits

SOCIAL IMPACT

* customer will gets more varieties of the product

* High availability of the product

BUSINESS MODEL

[>>> Improve the decision making process oriented at reducing cost and increasing revenues

[>>> Retailer are able to understand the deepest customer needs and adjust their offering to meet shoppers demand

TOOLS USED

➢   *Cognos Analytics*

- ➢ *Tableau*
- ➢ *Data Analysis with Python*
- ➢ *Power-BI*

S.NO	AUTHOR	TITLE	CONTENT	YEAR
1	Hien Vu	**Inventory management in retail industry - Application of big data analytics**	The retail industry is becoming rigorously competitive and narrowly profitable that retailers find themselves in a dilemma of neither excessive in- stock nor depleted out- of- stock is negotiable. The report finds the prospects of integrating BDA in the conventional inventory management techniques and promoting the viability and appropriateness of these models in the big- data era.	2018
2	Mirco Sturari	**Retail surveying and inventory using visual and textual analysis**	The manpower cost for surveying and monitoring the shelves in retail stores are high, because of which these activities are not repeated frequently causing reduced customer satisfaction and loss of revenue. Further, the accuracy of data collected may be improved by avoiding human related	2017
3	Jorge Andres Espinoza Aguirre	**Inventory record inaccuracy and store-level performance**	Inventory management is one of the important business processes which ensure that the supply of raw materials and finished goods remain continuous throughout the business operations. It could be during manufacturing or production to ensure smooth operations andorganization as it relates to purchases, sales and logistic activities [1]. Inventory management systems has the objective of ensuring smooth running of the production process, reduce the ordering cost of inventory, take advantage of quantity discount, and avoid opportunity loss on sales	2017
4	Ariful Islam	**Analysis of Different Inventory Control Techniques**	A smal saving in the inventory will mirror a crucial edge in benefit of the organisation. In Bangladesh, the retail shops generally face two types of inventory related problems which are either stock-out or overstock. As a result, most of the shops fail to maintain their product availability with lowest possible inventory cost. Through proper inventory control techniques, probability of stock-out as well as overstock situations in the retail shops can be minimised.	2019

| 5 | ISRAA MOHAMED | **Machine Learning Algorithms for COPD Patients Readmission Prediction: A Data Analytics Approach** | In this study, we aim at predicting the readmission of COPD (Chronic Obstructive Pulmonary Disease) patients through the deployment of machine learning algorithms. Area Under Curve (AUC) and ACCuracy (ACC) were considered as the main criteria for evaluating models' prediction power in each time frame. Then, the importance of the variables for each outcome was explicitly identified, and defined important variables have then been differentiated. Our study could achieve the highest accuracy in predicting readmission with %91 ACC. | 2015 |

EXISTING SOLUTION

> inventory-management-software
> zoho inventory

THE PURPOSES OF INVENTORIES ARE:

> To know how many units to order.

> To allow flexibility in retail scheduling.

> To maintain independence of operations.

> To meet variation in product demand.

> To provide a safeguard for variation in goods delivery time.

CAUSES OF POOR INVENTORY CONTROL

There are certain factors, which lead to poor inventory control in retail stores. These are as follows:

- Bulk buying due to avail discount or to cut down buying cost can lead to huge inventory storage.

- When inventory acquisition is more as compare to consumption/sale.

- Over stocking due to some reasons sometimes result in poor customer service.

- Cancellation of delivery orders and unreliable and irregular supplies may lead to bulk inventory storage.

FOCUS AND WORK IN PROJECT

- Ensuring continuity of selling activities by proper and timely supply of goods.

- Hedge against price increases.

- Meet unexpected/ variations in customers demand. - Reducing inventory holding cost by using appropriate inventory management technique.

Safeguard against price changes and inflation