Project Title : Retail Store Stock Inventory Analytics
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LITERATURE SURVEY ON RETAIL STORE STOCK INVENTORY ANALYTICS

1)Inventory Management for Retail companies:

Authors: Cinthya Vanessa Muñoz Macas,Jorge Andrés Espinoza Aguirre ,Rodrigo Arcentales-Carrión
Published : IEEE 2021
Description: analyze and present an extensive literature concerning inventory management, containing multiple definitions and fundamental concepts for the retail sector. A systematic literature review was carried out to determine the main trends and indicators of inventory management in Small and Medium-sized Enterprises (SMEs). This research covers five years, between 2015 and 2019, focusing specifically on the
retail sector. The primary outcomes of this study are the leading inventory management systems and models, the Key Performance Indicators (KPIs) for their correct management, and the benefits and challenges for choosing or adopting an efficient inventory control and management system. Findings indicate that SMEs do not invest resources in sophisticated systems; instead, a simple Enterprise Resource Planning (ERP) system or even programs such as Excel or manual inventories are used.

2)Inventory Management Models and Their Effects on Uncertain Demand:

Authors: N. Nemtajela, C. Mbohwa
Published: IEEE 2016
Description: This paper focuses on the use of inventory models to control the material flow and purchased inventory items in manufacturing companies. The objectives of this paper are to assess the effects of demand uncertainty on inventory management and to evaluate the difference on uncertain demand subject to demand controls as determined and the models used. Three inventory management models are studied; the Economic Order Quantity (EOQ), the Activity-Based Costing (ABC), and Just-in-time (JIT). The paper was descriptive in nature and was conducted through the use of quantitative research methods. Survey questionnaire was compiled to gather primary data from five FMCG companies in manufacturing organizations. Survey data of 255 respondents from FMCG manufacturing
companies were used in the analysis.

3)Development of Inventory management System:

Authors: Yang Fan
Published: IEEE 2010
Description: Agent technology into domestic storage management and uses the autonomy, reactivity and sociality of Agent to realize the seamless connection among

enterprises by defining interaction and cooperation mechanisms among different Agents, thereby achieving the aim of reducing and even eliminating inventory, so it is a feasible thought and method for enterprises to realize effective storage management. This paper mainly designs a storage management system model describes main agent co-operation process of system.

4)Implementation of Inventory Analysis Tool for Optimization and Policy Selection:

Authors: Siong Sheng Chin, Edmund Chan, Terence Yeo
Published: IEEE 2008
Description: This paper serves to describe the development and application of a web based, low cost, user friendly Inventory Analysis Tool for stock availability optimization and enhanced delivery performance. The inventory optimization attempts to find dynamically the best inventory policy and safety stock for Stock Keeping Units with independent demands. The analysis is based on supply and demand data, which includes forecast variability and measurements. Important supply chain parameters are modeled and estimated with graphical visualization to identify potential opportunities for improvement. The tool gathers all historical and up-to-date information to effectively track the replenishment level, safety stock level and reorder the level of finished goods within minutes. A case study from National Heart Center Singapore on the use of the tool is presented. The results should encourage more inventory managers to use the tool to lower inventory dollar level and put forecasting errors in check and control.

5)Comprehensive Analysis on Intelligent Retail Management system using classification techniques:

Authors: Phanindra Kakumanu, Saiteja Mothe, Ravi Kumar Tata, Arpita Roy
Published: IEEE 2020
Description: Retailers/Businessmen search for quick benefits with fewer speculations. This paper focuses on structuring an application to yield more profits for retailers by utilizing Machine Learning. By considering the properties such as the spot of retail, the season of retail, the impact of season on the product(s), and many more to produce a yield where the product(s) can gain benefits for the retailers/business people. By knowing the proper item to the right season and spot, it benefits the retailers to purchase the required item through the application. By utilizing Machine Learning it helps to discover the "Pace of Recommendation (exactness)." Through that precision, finding whether the item is best for that season to sell or for that spot to sell, the retailer can acquire benefits as indicated by the season and item. At last, the need to consolidate prescient qualities and prescriptive qualities by accepting the perceptive conditions as a contribution to the further calculations, and the application gives the rate of suggestion for the recommended item. This paper focuses on using models Rpart, Naïve Bayes, and ID3 Algorithm.

6)Big Data Analytics: Enterprise Resource Planning

Authors: Mr Dhananjaya Kumar
Published: IRJET 2018

Description: ERP system is the source of planning of Enterprise Resource Organization and it is an integrated application software
solution offered by a vendor to support the seamless integration of information or data flows through an organization.
It is provided as a package comprising different modules, such as product management, quick billing details,finance or accounting,human resources management, supply product chain and customer information. ERP system process implementation is mainly the lengthy process and completely more complex resulting in many cases of unsuccessful implementation which have negatively impacted on the performance of an organization's business and up to 90% of implementations did not achieve all the desired benefits. A majority of ERP problems are discovered in the last stage of the ERP life cycle known as the post-implementation phase or the after-go-live phase. Much research has been undertaken in relation to the critical success factors of ERP implementation in developed countries whereas research on problems encountered in the ERP post-implementation phase are very limited in
developed across the countries. So overcome all the problem we are find the solution which is MapReduce technology in hadoop
System.

7)Inventory management in retail industry - Application of big data analytics:

Authors: Hien Vu
Published: Research gate 2018
Description: The report articulates the core problem of inventory management is the trade-off between shortage cost and overage costs. Again, the “performance frontier” graph indicates a pragmatic solution is introducing innovation to shift the efficiency curve. In this context, that innovation is BDA. 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. However, the limitations of BDA underlie data challenges, processing challenges and management challenges. Finally, the connection between BDA and Traditional operation concepts are presented with insightful lessons from the personal perspective.

The main objective of this report is to explore inventory management practices in the retail industry. In the second part, the report summarizes the literature review of inventory management models. Then the center trade-off in inventory management is presented in the third part, together with the necessity of applying BDA to understand BD. The fourth part will highlight the connection between BDA and operation concepts. The fifth part will discuss the major contribution of BDA in inventory management from the personal viewpoint. Finally, the conclusion will summarize the attempts to answer the question of BDA application in inventory management and note limitations on BDA implementation.